

1969

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1969-1970 BULLETIN

University of Vermont
COLLEGE OF
MEDICINE



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Bulletin of the University of Vermont • Volume 67 • February 15, 1970 • Number 16

Published by the University of Vermont, 85 South Prospect Street, Burlington, Vermont 05401, 25 times a year: once each in August and June; twice in October, November, December, January and May; three times in February, March and April; and four times in September. Second Class postage paid at Burlington, Vermont 05401.



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History of the College of Medicine

The first General Assembly of the State of Vermont, convened in 1791, chartered The University of Vermont. Ira Allen, younger brother of Ethan Allen, had given 4,000 pounds sterling to help establish the institution. Instruction was started in 1800 and the first class graduated four years later.

Meanwhile Dr. John Pomeroy for many years the leading physician of Burlington, began around the turn of the century to take pupils. In 1804 he was appointed Lecturer in Chirurgery and Anatomy and, in 1809, Professor of Physic, Anatomy and Surgery at the University. The position carried no stipend nor did the institution even provide a room in which to give instruction. By 1814 Pomeroy had so many students he could no longer accommodate them in his home and he consequently rented an empty store in which he lectured to a class of 12. His son, John N. Pomeroy (not a physician), added a course of lectures in chemistry in 1816 and to these the townspeople occasionally came out of interest in the demonstrations.

In 1822 a faculty of 5 professors including John Pomeroy and Nathan R. Smith was assembled and the Trustees of The University of Vermont ruled that the president might "confer medical degrees on such persons as shall attend the medical lectures and are recommended by the medical professors and lecturers of the University." Dr. Smith's father, the more famous Dr. Nathan Smith and the founder of the medical colleges of Dartmouth, Bowdoin, and Yale, is said to have helped in the organization of the Vermont school.

In the early years of the 19th century only a small portion of medical education took place in the universities. The part-time doctor of colonial times had given way to the full-time professional physician but there was no legal regulation of the practice of medicine. Most degrees and certificates, if they were obtained at all, were granted by the medical societies after the candidate had served as an apprentice.

William Beaumont, the Army Surgeon whose experiments on the physiology of digestion as performed on the person of the French Canadian youth, Alexis St. Martin, formed the basis of this science, began his medical career in Vermont.

While still a school teacher in Plattsburgh, N.Y., he is said to have paddled a canoe across Lake Champlain to read in the library of Dr. Pomeroy and later was apprenticed to Dr. Benjamin Chandler of St. Albans. The minutes of the Third Medical Society of Vermont record that on the second Tuesday of June, 1812 Beaumont "presented himself for examination in the different branches of the medical profession" and was approved.

In the late 1820's a group of local physicians interested some philanthropically-minded residents of Burlington in buying land for a medical college building ad-

jacent to the University campus and in 1829 a two-story brick building was built. In 1828 Benjamin Lincoln, the grandson of the famous revolutionary general of the same name, was invited to Burlington to give a course of lectures in anatomy. Lincoln had had a classical education at Bowdoin and had been apprenticed to the fashionable and distinguished Dr. George Shattuck of Boston. Rustic and educationally unprepared as most of the Vermont students were, they were evidently entranced by Dr. Lincoln's beautiful demonstrations and the clarity of his presentations. He was offered the chair of anatomy and although the Universities of Maryland and Bowdoin both solicited him he chose Vermont, perhaps because he "hoped to realize . . . his idea of a medical school in this University without the hindrance of encrusted organic remains from old formations." Lincoln soon became the leading light of the school which flourished for a few years. Unfortunately he became ill and in 1834 went back to his home in Maine to die. There were now two other medical schools in the State and an economic depression was developing. In 1836 after having granted 116 degrees in course and 24 honorary ones, the College of Medicine closed its doors.

There was a lapse until 1853 when after many tribulations, most of them financial, Drs. W. S. Thayer of Northfield and Walter Carpenter of Randolph succeeded in re-organizing the Medical College. Subscriptions were solicited from the medical professors and the Burlington townspeople and Mrs. Thayer held a "fair" which netted \$450.00. The University provided a building (the same one which had been used by Dr. Lincoln and which still is in use, although for different purposes) on the academic campus. In spite of competition from the schools in Woodstock and Castleton in Vermont, and Hanover, N.H., courses were started and the school remained viable largely through the efforts and personal and professional distinction of Drs. Thayer and Carpenter, both of whom served successively as Dean. The average student attendance from 1859 to 1878 was about 65. Then under the deanship of Dr. A. P. Grinnell there was a period of rapid expansion reaching a high tide in 1884 when 101 young men were graduated in Medicine.

The University of Vermont College of Medicine was then, as were most others of the day, essentially a proprietary institution. The University provided some amenities, and it was to a considerable extent responsible for the success with which the College outlasted many of its competitors. The medical faculty was, however, a closed corporation collecting its own fees and providing its own administration. That this was not an ideal situation was apparent to the profession and in fact it was a movement toward reform of medical education proposed by the Vermont State Medical Society in the 1840's which led to a national convention which later evolved into the American Medical Association. In 1899 the Trustees of the Uni-

History

versity, although as yet only dimly aware of the enormous responsibility, financial and otherwise, which this was to entail, took over complete control of the College of Medicine.

Medical education in the 19th century was didactic but clinical teaching, a rare luxury at first, became progressively more important. In 1879 the Mary Fletcher Hospital was built in Burlington and in 1924 the DeGoesbriand Memorial Hospital began to admit patients. Both became centers of clinical instruction and in 1967 the two institutions merged to form the Medical Center Hospital of Vermont, providing an even closer association with the Medical College while at the same time retaining long traditions of service to the sick.

During the post-World War II deanship of Dr. William E. Brown, the faculty of the College of Medicine began a period of exponential growth, adding a national and then international flavor to the academic medical community. Under Deans George A. Wolf, Jr., Robert J. Slater, and Edward C. Andrews, the responsibility of American medicine toward the developing nations of the world has been implemented, research has flourished, and the material resources of the institution have increased, culminating in the construction of a new medical college building completed in 1968. In expectation of this, 75 students were accepted for admission to the class entering in September 1968.

The physician, while still in most instances the captain of the health team, is being joined by increasing numbers of other professional personnel who bring to the care of the patient diverse disciplines, talents and techniques, many of them unknown a few years ago. The University has responded to this trend by two recent developments, one administrative and the other academic. In December of 1967, the Trustees approved the establishment of the Division of Health Sciences bringing together into an administrative unit, the College of Medicine, the School of Nursing and the newly founded School of Allied Health Sciences to include the courses of instruction in Dental Hygiene, Medical Technology and Radiological Technology. Others will undoubtedly be added.

The academic consequence of this increase in complexity has been the recognition that specialization, already well established in the patterns of medical practice, must begin early if the student is to obtain maximum benefit from his years in the Medical College. The curriculum has therefore undergone a major revision as will be seen in later pages of this brochure.

Student Information

REQUIREMENTS FOR ADMISSION

Applicants to The University of Vermont College of Medicine are expected to complete the requirements for admission in a college or university accredited by the National Committee of Regional Accrediting Agencies of the United States, by July 1 preceding the September admission date. They should have completed one year each of the following college level courses: biology, English, mathematics, physics, general chemistry, organic chemistry, and a satisfactory one-semester course in quantitative chemistry or physical chemistry. The College of Medicine prefers candidates who have concentrated in one or more fields of interest, not necessarily in the life or physical sciences, and who present a background of active participation in the life of their college or university.

Students must satisfactorily complete all requirements for admission to the College of Medicine in any given year by July 1 preceding the September admission. Eligibility of an applicant for admission is determined by the Admissions Committee of the College of Medicine on the basis of the following:

- The scholastic record of the applicant in his premedical work.

- Personality and general fitness of the applicant for the study and practice of medicine as determined by recommendations of the applicant's college teachers and others, and by personal interview with the Admissions Committee.

- The applicant's scores on the Medical College Admission Test. Such scores are taken into consideration but are not used as a final determinant in accepting students. Applicants are urged to take the Medical College Admission Test in May if a majority (all but one or two) of the required courses have been or will be completed by the end of that academic year.

Candidates invited for an interview are required to submit a health report completed by their college or university health service. (Not by their personal physician.)

A maximum of seventy-five students is admitted to each entering class. The faculty sincerely hopes that each entering student will successfully complete the medical curriculum and graduate with the degree of Doctor of Medicine.

Preference for admission is according to the following priorities:

- Qualified residents of Vermont.

Regulations for College of Medicine Students

Qualified residents of other New England states having contractual arrangements with the College of Medicine through the New England Board of Higher Education. Contracts are presently in force with the states of Maine, New Hampshire, Massachusetts and Rhode Island.

Qualified residents of other areas. The number of places for residents of other areas is limited and competition for these places is especially keen.

Sons and daughters of alumni of the College of Medicine are given special consideration within the framework of the above policy.

The final closure date for receiving applications is November 1 preceding the September admission.

An application fee of ten dollars (not refundable), payable to The University of Vermont, must accompany all formal applications.

When an applicant who is not a Vermont resident is offered admission to the College of Medicine and wishes to accept the place offered, a deposit of \$100 must be paid not later than two weeks following notice of acceptance in order to reserve a place in the entering class. This deposit is refundable up to March 1 preceding admission, should the student release his place in the class. The deposit is applied toward the student's tuition in the first semester upon matriculation in the College of Medicine. Checks should be made payable to The University of Vermont and sent to the Admissions Office, College of Medicine, University of Vermont, Burlington, Vermont 05401.

ENROLLMENT

All entering students register at the commencement of the academic year. Payment of tuition and fees is required at this time. A late registration fee will be charged students who fail to register on the day designated for registration.

Regulations for College of Medicine Students

Students are governed by the regulations as stated in the Bylaws of the College of Medicine. Some of the more pertinent regulations in these Bylaws are as follows:

ATTENDANCE

No student is eligible for a medical degree who has not been registered in medical school four complete consecutive years unless a leave of absence has been granted by

the Executive Committee. Resumption of study after other absences greater than the time allowed for absence will be permitted only on majority vote of the Faculty of the College of Medicine upon the recommendation of the Admissions Committee.

ADVANCEMENT

a. The standing of each student in his class at the end of the session is based upon the general character of his work in the different laboratories and other practical exercises, upon the character of his recitations, and upon the results of all examinations held during and at the end of the courses.

b. Final examinations may or may not be held, at the option of the department chairmen, with the approval of the Dean.

c. A student who fails to present himself at the appointed hour for any examination at which he is due to appear will be treated as having taken the examination and failed to pass it, unless he is excused from the examination by the chairman of the department or section.

d. If a student receives a failing grade in any final written examination or in any course, the final written examination, if any, will be filed in the Dean's Office.

e. The work of students is evaluated on the basis of pass or fail.

f. Departments may apprise students of their grade in any examination. Students will be notified of their final grade in each course.

g. Final course marks are to be reported to the Dean's Office; if a course terminates in mid-term, final marks will be reported to the Dean's office within two weeks after such termination.

h. The scholastic records of all students will be reviewed by the Committee on Advancement at the end of each course and may be reviewed at any time.

i. Students who fail one or more courses will not be permitted to continue with their class except upon recommendation of the Advancement Committee and by vote of the Faculty of Medicine. As a condition for such continuation, such students will be required to pass a make-up examination in the subject or subjects failed or to satisfactorily repeat the course or courses failed in a summer session of an approved college of medicine. Students not permitted by vote of the faculty to continue with their class are automatically dismissed from the College of Medicine. A

Regulations for College of Medicine Students

student dismissed by vote of the Faculty of the College of Medicine may petition the Faculty to be readmitted to a subsequent class. Such readmission may be granted by vote of the Faculty of the College of Medicine and the conditions of such admission will be defined on an individual basis.

j. The Faculty may dismiss at any time a student whom they consider to be academically or otherwise unfit for a career in medicine.

k. No student of the College of Medicine, assigned to extramural duty, will absent himself from such assignment except with the Dean's permission.

1. Special rules affecting each class.

1. Basic Science Core.

Students will be advanced from the Basic Science Core to the Clinical Science Core when they have satisfactorily completed all work of the Basic Science Core and their advancement is approved by vote of the faculty.

2. Clinical Science Core.

At the completion of the Clinical Science Core students may be required to take a comprehensive examination upon recommendation of a department chairman, subject to the approval of the Committee on Advancement and the Dean. Students will be advanced to the Major Program when they have satisfactorily completed all of the work of the Clinical Science Core and their advancement has been approved by vote of the faculty.

3. Major Program.

Students may be required to take a comprehensive examination upon recommendation of a department chairman, unless excused by the Dean of the College of Medicine.

Correct English usage is demanded by all departments in the University. Written work of any kind which is unsatisfactory in manuscript form, grammar, punctuation, spelling, or effectiveness of expression may be penalized regardless of content. Students whose written work falls below the standard of correct usage may be remanded to the English Department for additional instruction even though the freshman course in English has been passed.

Fees and Expenses

REQUIREMENTS FOR GRADUATION

Candidates for the degree of Doctor of Medicine must have reached the age of twenty-one years and must be of good moral character. All the requirements of this college in regard to preliminary education must have been met, and the candidate must have attended regularly and completed satisfactorily the prescribed work of the four courses of instruction. Students must have discharged all current indebtedness to the University.

The degree of Doctor of Medicine is granted by the Board of Trustees of The University of Vermont to candidates only upon recommendation of the Committee on Advancement and the Faculty of the College of Medicine to the University Senate.

All candidates for degrees must be present at Commencement unless excused by the Dean of the College.

Fees and Expenses

Application fee	10.00
Deposit fee	100.00
Required of all non-residents admitted to the entering class, and applicable toward tuition	
Tuition	600.00
For Vermont residents and bona fide residents of other states having contractual arrangements entitling them to resident tuition rates.	
For non-residents	2,000.00
Athletic fee	30.00
Medical Student Activity fee	10.00
Locker key deposit (refundable end of year)	2.00
Books and supplies (estimated)	250.00
Microscope rental required: 1st year	40.00
2nd year, 1st semester	20.00
	Average
Room rent	720.00
Board	705.00

A complete supply of medical textbooks, outlines, student supplies and equipment is available at the University Bookstore.

Scholarships and Loan Funds

Medical students may by paying the student activity fee of \$15, become entitled to the benefits other University students receive by payment of that fee. This includes free admission to home athletic contests.

In the event of withdrawal from college, refunds are made as follows: During the first week of any semester the full tuition is refunded. Thereafter 20 percent of the tuition is deducted for each week that has elapsed. Students temporarily absent from the University are charged as if present.

A student who has been dropped into a lower class because of deficiency in his work, or for other reason, will be required to pay his bills for the additional year or years in which he may be in attendance at the University.

HOUSING

The University does not have housing available for medical students, but the Housing Office located at 633 Main St. on the University campus will be pleased to try to assist medical and other students in locating suitable housing.

DINING SERVICE

Any medical students who wish to do so may purchase contracts to take their meals in one of the University dining halls, or may purchase meals singly in the dining halls by paying the guest rate.

Scholarship Funds

DR. ELLICE M. ALGER SCHOLARSHIP FUND Established 1967 to aid worthy and needy medical students.

MOSES D. CARBEE, Class of 1873 Established by a bequest from Mrs. Mary D. Carbee in memory of her husband; available for medical students.

GROVER C. EMERY Established by bequest in 1968 for students in College of Medicine who are residents from State of Maine or a premedical student from State of Maine.

JOHN W. AND JOHN SEELEY ESTABROOK Established by bequest in 1956; for students in the College of Medicine from Rutland County, preference being given to students from Brandon.

FEDERAL MEDICAL SCHOLARSHIP GRANTS, established by the Health Professions Educational Assistance Amendments Act of 1965.

DR. EDWARD EVERETT HAWES Established by bequest in 1946; available for medical students.

EDITH BLANCHE KIDDER Established by Joseph W. Kidder for students in the College of Medicine; preference to be given to legal residents of Barre.

ALDO J. LEANI, M.D., Class of 1934, established in 1961 for students in the College of Medicine.

NEW YORK LIFE INSURANCE COMPANY SCHOLARSHIP Established in 1966 for students in College of Medicine.

JOHN ORDRONAUX Founded in 1909; for students in the Academic and Medical Colleges.

HORTENSE A. QUIMBY Established by bequest in 1968; income to be used to provide scholarships to medical students with preference being given to students from Essex County, Vermont.

PETER J. SHAMMON SCHOLARSHIP FUND Established in 1967 as a memorial to Mrs. Marian Shammon.

DR. H. C. TINKHAM Established by bequest in 1956; for students in the College of Medicine.

STATE SCHOLARSHIPS Vermont residents in real need of financial assistance may receive up to \$800. Loan funds are also available. Contact the Assistant Dean's Office of the College of Medicine for further information.

CENTURY CLUB SCHOLARSHIPS of the Alumni Association of The University of Vermont College of Medicine were established in 1965. Awards are made to deserving students who are not residents of Maine, New Hampshire, Vermont, Massachusetts or Rhode Island.

Loan Funds

MOSES DYER CARBEE, M.D., Class of 1873 Established by Mrs. May D. Carbee in memory of her husband for students of the College of Medicine.

DR. THOMAS HARMAN DENNE MEMORIAL LOAN FUND Established in 1963 by relatives and friends of the late Dr. Thomas H. Denne, Class of 1905, the income to be used for deserving students in the College of Medicine.

G. STEDMAN HUARD MEDICAL STUDENT LOAN FUND Established by G. Stedman Huard, M.D., Class of 1946, for aid to senior medical students who are Vermont residents, preference to be given to Winooski residents.

KELLOGG FOUNDATION LOAN FUND Medical students.

DR. JOSEPH E. LUMBARD Established in 1946 by the gift of Mr. J. Edward Lumbard, Jr., for students in the College of Medicine.

MEDICAL STUDENT LOAN FUND Established in 1933 by Medical College alumni for students in the College of Medicine.

Scholarships and Loan Funds

ELIZABETH D. AND CLIFFORD R. PROCTOR Established in 1953 for students in the College of Medicine.

QUARTER-OF-A-CENTURY LOAN FUND A loan fund for medical students established by the Class of 1938 and added to by the following 25-year classes.

JAMES A. SINGISER MEDICAL STUDENT LOAN FUND Established by James A. Singiser, M.D., to aid needy medical students.

UNIVERSITY OF VERMONT MEDICAL SCHOOL LOAN FUND For medical students from New Hampshire, established in 1963 by Dr. Thomas R. Plowright.

MRS. HAROLD T. WHITE MEDICAL STUDENT LOAN FUND Preference given to medical students.

AMERICAN MEDICAL ASSOCIATION established the Medical Education Loan Guarantee Program whereby loans are available to medical students who are residents of the United States.

STUDENT AMERICAN MEDICAL ASSOCIATION EMERGENCY LOAN FUND. Established in 1966. Certain special and endowed scholarships and funds, including the Wilbur Fund, are available to students of the College of Medicine. Application forms for scholarship and loan funds may be obtained from the Dean's Office and should be submitted by April 15 prior to September entrance.

STUDENT RESEARCH FELLOWSHIPS

The objective of the Student Research Fellowship Program is to enable interested students to participate in a research project with selected members of the faculty. Two types of experience are available.

Post-sophomore fellowships are offered to students who wish to take a year's leave of absence for advanced study in a basic science that may lead to a Master's degree. The stipend is \$2,600 for the year.

The Summer Student Fellowship Program is an elective course of study designed to introduce students to the disciplines of research. It is not restricted to students contemplating a career in medical research nor is the experience itself an apprenticeship to a faculty research endeavor. These fellowships are supported by grants and include a stipend of \$75.00 per week. The Summer Student Fellowship Program is coordinated through the Office of the Assistant Dean.

MEDICAL COLLEGE PROGRAM AND OBJECTIVES

Program and Objectives

In the fall of 1967 The University of Vermont College of Medicine inaugurated a new and dramatically different curriculum. This new curriculum was the result of five years of careful study and deliberation on the part of the entire faculty. The changes stemmed from recognition of the fact that patterns of medical practice are changing and that medical education must change accordingly.

In the past, virtually all physicians were in general practice. Today, there is still a need for the general practitioner or family physician. In addition, the increasing complexity of modern medicine has required the development of a large number of medical specialties. Physicians must also be trained as investigators and teachers. Some medical schools have attempted to train one type of physician, for example the teacher-investigator, while neglecting the education of the other types of physicians.

The University of Vermont has developed a curriculum that will be suitable for the training of family physicians, medical specialists, and teacher-investigators. Obviously, the needs of these three groups are different and, therefore, in the new curriculum each student will select a course of study appropriate to his goals after receiving a general grounding in the basic sciences and medical practice.

GENERAL PLAN OF THE NEW CURRICULUM

The new curriculum consists of three parts: the basic science core, the clinical core, and the major program.

BASIC SCIENCE CORE

The forty-eight weeks of instruction in the basic science core spans the freshman year and fall semester of the sophomore year. During this period students are instructed in the basic sciences that undergird clinical medicine. Emphasis is placed on that body of knowledge common to all types of medical practice, avoiding the minute details relevant only to individual specialties. Comprehensive clinics, seminars in Behavioral Science and the elective faculty tutorial program provide for the first-year medical student clinical contacts, an awareness of social, cultural and psychologic factors affecting health and illness, and insight into the major issues influencing the practice of medicine.

Since the inauguration of the new curriculum several modifications have been made in the teaching of the Basic Science Core. The most important of these has been the increased emphasis on integrated teaching. In 1968 the teaching of Neuroanatomy and Neurophysiology was combined into the course in Neural Science. This course,

Program and Objectives

in turn, has been further integrated with the teaching of Physiology during the present academic year. Similarly coordinated teaching in Pathology, Pharmacology and Introduction to Clinical Disciplines has been achieved during the fourth period of the basic science core. These, and other modifications in the curriculum have resulted from student-faculty dialogue through the curriculum advisory committees on which students serve as full members.

CLINICAL SCIENCE CORE

The clinical core extends from January of the sophomore year until December of the junior year. During this twelve-month period students receive twelve weeks of clinical instruction in Medicine and Surgery and eight weeks in Obstetrics and Gynecology, Pediatrics and Psychiatry. Instruction is carried out at the Medical Center Hospital of Vermont and at the Vermont State Hospital in nearby Waterbury.

MAJOR PROGRAM

The Major Program extends from January of the junior year until graduation in May of the following year. This sixteen month period is divided into ten rotations of approximately six weeks duration. The Major Program enables each student to select that course of study best suited to his career objectives. Majors are offered in each of the preclinical sciences and Medicine, Surgery, Obstetrics and Gynecology, Pediatrics, and the Neurological Sciences and Psychiatry.

An integral part of each clinical major is a review and extension of basic science relevant to that discipline. Each major includes a limited number of required clinical and/or laboratory experiences as well as elective rotations. These electives are not restricted to the discipline in which the student is majoring and may include experiences in approved programs outside of Burlington. Each of these programs has sufficient flexibility to meet the interests and goals of each student. During the 1969-70 academic year, for instance, students with career goals in family practice selected major programs in Medicine, Pediatrics and Surgery, while those with future careers in Psychiatry selected major programs in Medicine and Neurological Sciences and Psychiatry, and so forth. A system of faculty advisors has been developed to counsel each student on a one-to-one basis throughout the planning and course of his major program.

Although the majority of students elect a clinical major, students so desiring may commit the full Major Program to study in the preclinical sciences. While these programs are individualized, it is expected that graduate study, research and a thesis will form the basis for each. Qualified students may enroll in the Graduate College as candidates for the Master of Science degree while fulfilling the requirements of the M.D. degree within the Major Program.

GRADUATE MEDICAL EDUCATION

Reflecting the relationship between the Medical Center Hospital of Vermont and the University, the fifteen Chiefs of Service who direct the graduate medical education programs at the Medical Center Hospital are the Department and Section Chairmen of the corresponding specialties at the College of Medicine. These chairmen, with representatives from the Dean's Office of the College of Medicine, and administrative offices from the Medical Center Hospital and University of Vermont constitute the Graduate Medical Education Committee, which oversees graduate medical education at the Medical Center Hospital.

The University of Vermont College of Medicine and the Medical Center Hospital of Vermont offer internship programs in Medicine, Pathology, Pediatrics, and Surgery. Each is the responsibility of the appropriate department chairman; each has the flexibility to complement the varying undergraduate backgrounds of its candidates; each is integrated with its corresponding residency program.

Residency programs are offered in Anesthesiology, Internal Medicine, Neurological Surgery, Neurology, Obstetrics and Gynecology, Orthopedic Surgery, Otolaryngology, Pathology, Pediatrics, Psychiatry, Radiology, Rehabilitation Medicine, Surgery, Thoracic and Cardiac Surgery, and Urology. A residency in Family Practice is in the planning stage.

RESEARCH

The primary responsibility of the College of Medicine is the teaching of well-qualified men and women the science and art of medicine. This teaching cannot go on, however, isolated from the progress being made in expanding medical knowledge, techniques, equipment. Thus many faculty members of the College of Medicine, often working with faculty or other colleges of the University, are engaged in a wide-ranging number of research projects supported by private and federal grants.

Program and Objectives

BASIC SCIENCE CORE

FIRST PERIOD HOUR PLAN—Fall, 1970—14 Weeks

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:00 - 9:00	Biochemistry	Biochemistry	(1) Biostatistics	Biochemistry	Biochemistry
9:00 - 10:00	Anatomy	Anatomy	Comprehensive Clinic*	Anatomy	Anatomy
10:00 - 11:00					
11:00 - 12:00					
12:00					
1:00 - 2:00	Anatomy		Anatomy		Behavioral Science
2:00 - 3:00					
3:00 - 4:00					
4:00 - 5:00					

(1) Thru Nov. 18;
Final Nov. 25

*Sept. 16
Oct. 14
Nov. 11
Dec. 9

SECOND PERIOD HOUR PLAN—Winter, 1971—11 Weeks

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:00 - 9:00	Biochemistry	Biochemistry	Biochemistry	Physiology- Neural Science	Biochemistry
9:00 - 10:00	Physiology- Neural Science	Physiology- Neural Science	Physiology- Neural Science		Behavioral Science
10:00 - 11:00					Physiology- Neural Science
11:00 - 12:00					
12:00					
1:00 - 2:00	Biochemistry		Biochemistry		Physiology- Neural Science
2:00 - 3:00					
3:00 - 4:00					
4:00 - 5:00					

* Comprehensive Clinic. Jan. 13
Feb. 10
Mar. 11

THIRD PERIOD HOUR PLAN—Spring, 1971—9 Weeks

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:00 - 9:00	Pathology	Microbiology	Microbiology	Microbiology	Pathology
9:00 - 10:00		Pathology	Pathology	Community Medicine	Community Medicine
10:00 - 11:00		Community Medicine	Community Medicine		
11:00 - 12:00	Genetics	Genetics		Pathology	Genetics
12:00					
1:00 - 2:00	Microbiology		Microbiology		Microbiology
2:00 - 3:00					
3:00 - 4:00					
4:00 - 5:00					

FOURTH PERIOD HOUR PLAN—Fall, 1970—14 Weeks

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
8:00 - 9:00	Pharmacology	Pharmacology	Pharmacology	Pharmacology	Pharmacology
9:00 - 10:00	Pathology	Pathology*	Pathology	Pathology	Pathology
10:00 - 11:00		Introduction to Clinical Disciplines*			
11:00 - 12:00					
12:00					
1:00 - 2:00	Pharmacology Section A	Pharmacology Section B	Psychopathology	Introduction to Clinical Disciplines	Psychopathology
2:00 - 3:00			Introduction to Clinical Disciplines		Introduction to Clinical Disciplines
3:00 - 4:00					
4:00 - 5:00					

* Alternate weeks

Teaching Facilities

In 1968 the third phase of a 12-million dollar expansion program was dedicated, completing a decade of planning and construction accomplished through alumni support, private philanthropy and federal funds. Thus for the first time the teaching and research activities of the College of Medicine have been brought together under one roof.

First to be completed in this ambitious program was the Medical Alumni Building. Dedicated in 1959, this structure was named to honor the loyalty of the medical alumni whose vision and support provided the impetus for the building program.

The Medical Alumni Building is linked to the Given Medical Building by the two-storied Charles A. Dana Medical Library. This air-conditioned facility provides eight times the area of the old library, more than triples the book capacity and contains carrels for individual study, as well as comfortable and spacious reading rooms. The Library is open seven days a week until 1:00 a.m.

Largest of the three buildings is the Given Medical Building. Its 236,000 square feet contain the majority of the teaching and research space for the College of Medicine. This unit also contains the 280-seat Carpenter Auditorium, student lounge, administrative offices and cafeteria.

In the advanced planning stage, with construction expected to be started in 1970, is a building to house Nursing and Allied Health Sciences. This facility, providing approximately 70,000 square feet of office and classroom space, will be connected to the Given Medical Building.

HOSPITAL

THE MEDICAL CENTER HOSPITAL OF VERMONT, INC.

For a medical school, the teaching hospital is the keystone that supports the clinical education of the medical student and graduate physician alike. Here the opportunity exists to observe and participate in the care of the sick under the mentorship of those who exemplify the highest skills in the science and art of medicine.

The two former teaching hospitals of the University of Vermont College of Medicine, the DeGoesbriand Memorial and the Mary Fletcher, have legally merged to

form the Medical Center Hospital of Vermont. This brought into existence in Burlington one of the larger and more comprehensive general hospitals in New England.

The role of the Medical Center Hospital is unique in the northern New England region. Not only is it the teaching hospital of the University of Vermont College of Medicine and a referral center for upstate New York, northern Vermont and New Hampshire, but it is also the major community hospital for the 80,000 inhabitants of the Greater Burlington Area. A balance exists, therefore, between patients with complicated and rare diseases and those with diseases that are prevalent in any community; a balance that provides every intern and resident at the Medical Center Hospital with medical experiences in breadth as well as depth.

Each year more than 20,100 patients are discharged, over 24,500 clinic visits made, and nearly 35,200 patients are treated in the emergency rooms of the Medical Center Hospital. Expansion of facilities in 1968 increased the bed capacity to 750, growth that has been matched by expanding capabilities in all medical services and in clinical research. All of the two hundred physicians on the attending staff hold faculty appointments at the University of Vermont College of Medicine.

Besides medical teaching, educational programs are conducted in nursing, x-ray technology, laboratory technology, social service, hospital administration and physical therapy. Special facilities are available such as a cinefluoroscopy unit in Radiology, a cardiopulmonary laboratory performing cardiac catheterizations as well as routine heart and lung studies, a radio-isotope laboratory, and deep therapy treatment by means of cobalt and linear generator. Research is an important part of the medical center program.

THE VERMONT REHABILITATION CENTER. The Vermont Rehabilitation Center is a 20-bed rehabilitation center operated by the State of Vermont through a Governing Committee which is appointed by the Governor of the State. The Rehabilitation Center is affiliated with the University of Vermont College of Medicine and is one of the teaching units of the College.

The purpose of the State Rehabilitation Center is to provide broad and complete rehabilitation services for all types of disability; to provide Center-based services for

Teaching Facilities

the disabled in other areas of the State, and to provide in-service and on-the-job training programs for personnel in the health professions who are concerned with the evaluation and diagnosis of disability.

The physiatrists and the faculty of the College of Medicine extend their activities from the Center to other Units of the Hospital. Medical care is provided by the internal medicine service. Departments which make up the Center complex are: rehabilitation nursing, physical therapy, occupational therapy, social service, psychology, and work evaluation.

OFFICE OF INSTRUCTIONAL RESOURCES

Director Robert B. Lorenz, Ph.D.; Instructional Materials Specialist Elizabeth Taylor, M.S.

This group assists the faculty in the improvement of instruction through the development, selection and use of instructional media. Instructional television services are coordinated by this office. Audiotutorial equipment to support independent student learning through audio tapes, still color illustrations, and film loops have been placed in the Medical Library and one departmental laboratory. The Office of Instructional Resources coordinates the design and production of materials for the audiotutorial learning environments. These services, in addition to the planning of media and information about commercially available instructional materials, are available to the faculty of the Division of Health Sciences.

DIVISION OF PHOTOGRAPHY

Director Francis C. Mallory, R.B.P.; Medical Photographer Wing M. Woon; Assistant Medical Photographer Philip W. Gray; Medical Illustrator Elizabeth Sourmail.

The Division of Photography is now located in a modern photo section with the completion of the Given Medical Building. This Division has a full-time staff whose services are available to all Departments for patient photography, photomicrography, art work and teaching aids in both black and white and color.



Classroom break on University of Vermont campus; Votey Engineering Hall at left, Mary Fletcher unit of Medical Center Hospital of Vermont in background.

THE DEPARTMENTS IN THE COLLEGE OF MEDICINE



Aerial view looking west from the campus across Lake Champlain to the Adirondack Mountains.

The Department of Anatomy

Chairman: William J. Young, II, Ph.D., Thayer Professor of Anatomy. Professors Dunihue, Newhall (Emeritus), and Young; Associate Professors Ring (Radiologic Anatomy) and Wells; Assistant Professors Freedman, Iorio, Weidman, and Emma F. Wennberg; Demonstrator Boushey.

First-year courses for medical students are given in gross anatomy, histology (including embryology), neuroscience and genetics.

BASIC SCIENCE CORE

GROSS ANATOMY. The core course in Gross Anatomy is designed to give the student a grasp of the fundamental principles of organization of the human body, together with the relevant, selected detail. General dissection of the entire body is carried out by the students. Prosections are done for all regions of the body, and those areas requiring time-consuming and difficult dissections are covered by demonstration of prosected material. Models, cross sections, skeletal material, charts, and movies are utilized throughout the course. Radiological anatomy of all regions is presented, and appropriate clinical departments correlate the gross anatomy of a given region with clinical problems by lectures, visual aids, and presentation of patients. Two hours of lecture and ten hours of laboratory weekly during the first trimester.

HISTOLOGY. The aim of the course in histology is to help the student acquire useful and meaningful concepts of cell and tissue morphology and the structural organization of selected organs; an appreciation of structure as the locus of function; and an introduction to the methodology of histologic examination of tissues. Histochemistry and electron microscopy are emphasized when they illuminate structural and functional concepts. Six hours of lecture and laboratory each week during the first trimester.

NEUROSCIENCE. The core course in neuroscience outlines morphological and physiological features of the neuron and the central nervous system. The functional significance of structure is emphasized throughout, in order to prepare the student for intelligent diagnosis and localization of neural disorders in the clinical sciences. The course is offered in the second trimester.

GENETICS. The principles of genetic analysis, and of gene and chromosome structure, function and transmission are examined in twenty lectures in the third trimester. The consequences of altered gene function are illustrated in appropriate clinical examples. Drs. W. J. Young; R. J. McKay and W. E. Hodgkin (Pediatrics); and D. S. Newcombe (Medicine).

The Department of Anatomy

MAJOR PROGRAM

The Department of Anatomy, in cooperation with interested clinical departments, will offer, in addition to Graduate College courses, advanced and revision opportunities in pertinent aspects of neuro-anatomy, surgical anatomy, and histology.

GRADUATE COLLEGE COURSES

Work in several branches of Anatomy leading to credit for a Master of Science degree can be arranged.

PREREQUISITE—Permission of the Department Chairman.

202 ELECTRON MICROSCOPY. A methodology course designed to provide basic knowledge of and experience with the techniques of electron microscopy and interpretation of electron micrographs. Three credit hours.

301 GROSS ANATOMY. The course as given to medical students. Study of the gross structure of the human body by means of general dissection, cross-sections, special dissection, and demonstrations. Six credit hours.

302 NEUROSCIENCE. A correlated presentation of the neuroanatomy and neurophysiology of the mammalian central nervous system. The course will consist of lectures, demonstrations and laboratory. The laboratory consists of both microscopic examination of the nervous system and gross dissection of the human brain. Clinical presentation of patients with neurological deficits when appropriate. Same course as Physiology 302. Four credit hours.

311 MEDICAL HISTOLOGY. The regular medical course. Microscopic study of cells, tissues and organs using routine techniques. Three credit hours.

323 NEUROENDOCRINOLOGY. A consideration of the diencephalic regulation of hormonal activity. Initial lectures will cover morphological features of the hypothalamus and hypothalamo-hypophysial pathways. The major portion of the course will be devoted to hypothalamic mechanisms controlling each principal pituitary hormone. These topics will be covered in a brief lecture followed by a discussion based upon text and journal assignments. Two credit hours.

324 ADVANCED NEUROANATOMY. A detailed analysis of the morphology of the nervous system is presented through lectures and laboratory. A regional approach to the anatomy is supplemented by units on development, blood supply,

and the autonomic nervous system. Laboratory exercises will consist of brain dissection and microscopic examination of brain stem sections. Three credit hours.

§25 CEREBRAL CORTEX. Selected aspects of the morphology and physiology of the cerebral cortex will be presented by lectures and discussions of assigned reading. Thalamo-cortical systems, cytology, cytoarchitecture, development, functional localization, and neurochemical observations are some of the topics to be examined. Two credit hours.

§41, §42 SPECIAL DISSECTIONS IN GROSS ANATOMY. Special dissections of particular regions of the human body, utilizing either adult or fetal material. Credit as arranged.

§51, §52 SPECIAL TECHNIQUES IN HISTOLOGY. A study of selected cells, tissues or organs by means of special techniques. Specific work as agreed upon. Credit as arranged.

§74 CYTOGENETICS. The structure and function of chromosomes and associated organelles (centriole, spindle, nucleolus) will be analyzed by critical review of the current literature. The seminar will include the pertinent observations in human somatic and meiotic cells, as well as in selected plant and animal species. Two credit hours.

§81 through §89 SEMINARS IN ANATOMY. Critical review of the literature in various areas of the anatomical sciences. Credit as arranged.

§82 HISTOPHYSIOLOGY OF THE HEMATOPOIETIC TISSUES. Seminar discussions of pertinent literature on the functional morphology of the hematopoietic tissues under normal and certain abnormal conditions.

The latter are selected to illustrate altered or heightened normal activities. Where available, relevant histological and electron microscopic materials will be demonstrated. Two credit hours.

§84 SEMINAR IN CELLULAR FINE STRUCTURE. Seminar discussions of current concepts of the fine structure of cell organelles and of their functions and modifications as revealed by electron microscopy. Two credit hours.

§91 through §93 MASTER'S THESIS RESEARCH. Investigation of a research topic under the direction of an assigned staff member, designed to culminate in an acceptable Master's thesis. Credit as arranged.

The Department of Biochemistry

Chairman: Donald B. Melville, Ph.D. Professor Melville; Associate Professors Gjessing, Lamden and Schein; Associate Professor (Clinical) E. A. H. Sims; Assistant Professors Meyer, Thanassi, Willard, Woodworth and Wuthier; Instructor Ishikawa; Instructor (Clinical) Kunin; Demonstrator LaGrange.

The primary objective of the teaching program is to impart a knowledge of fundamental biochemistry which will permit an understanding of present applications and future developments in relation to medicine. In order to provide the biochemical information needed by other basic sciences, biochemistry is offered at the beginning of the first year. Emphasis is placed on fundamental biochemical principles, and applications to medicine are introduced whenever feasible.

Members of the Department are also available for participation in other courses in the medical curriculum when the subject matter is related to biochemistry.

BASIC SCIENCE CORE

MEDICAL BIOCHEMISTRY. Lectures, conferences, and assigned reading in biochemistry, particularly, as it relates to medicine. The first part of the course stresses the area of molecular biochemistry: chemistry, structure, and metabolism of proteins, amino acids, carbohydrates, lipids, and nucleic acids, and the properties and functions of enzymes. The second part is concerned with the biochemistry of the whole organism, with special reference to man: respiration, hemoglobin, iron metabolism, and plasma proteins; acid-base balance and mineral metabolism; vitamins; hormones and control mechanisms. The laboratory work is designed to demonstrate important principles and to illustrate methods and techniques of modern biochemistry.

GRADUATE COLLEGE COURSES

Opportunities exist for additional training in both the theoretical and practical aspects of biochemistry. Graduate courses offered by the Department as part of its Ph.D. program are available to qualified medical students as part of their elective program. Participation in the research activities of the Department is possible as an elective and also during the summer. Subject to the approval of the Department and to the regulations of the Graduate College, it is possible for qualified students to apply credit obtained in graduate courses and research toward an M.S. degree in biochemistry.

PREREQUISITE—Permission of the Department Chairman.

301-302 BIOCHEMISTRY. Lectures, conferences and assigned reading in the areas of molecular biochemistry and biochemistry of the whole organism, with

special reference to man. Topics include the chemistry, structure, metabolism and function of proteins, amino acids, carbohydrates, lipids, and nucleic acids; enzymes and bioenergetics; respiration, hemoglobin, plasma proteins, and iron metabolism; acid-base balance, water balance, and mineral metabolism; vitamins; hormones and control mechanisms. Four credit hours per semester.

303-304 **BIOCHEMISTRY LABORATORY.** Experimental work designed to demonstrate important principles and to illustrate methods and techniques of modern biochemistry. Three credit hours per semester.

311, 312 **BIOCHEMICAL PREPARATIONS.** Isolation, synthesis, and characterization of compounds of biochemical interest. Two credit hours per semester.

320 **GENERAL ENZYMOLOGY.** A general consideration of enzyme nomenclature, purification, assay, introductory kinetics, mechanisms, cofactors, active sites, and the relationship of enzyme structure to the biological control of activity. Two credit hours.

321 **ENZYME KINETICS AND MECHANISMS.** Topics include kinetics, specificity, inhibitors, enzyme-substrate interactions, and their relation to enzyme structure. Two credit hours.

331 **NUCLEIC ACIDS.** The structure, metabolism, and function of ribonucleic acids and deoxyribonucleic acids. Two credit hours.

340 **ORGANIC BIOCHEMISTRY.** Organic reaction mechanisms as related to substances of biochemical interest, with emphasis on catalytic mechanisms. Two credit hours.

371 **PHYSICAL BIOCHEMISTRY.** Protein interaction solubility and fractionation, electrophoresis, sedimentation, phase rule study, diffusion, viscosity, spectrophotometry, and related subjects. Two credit hours.

381 through 389 **SEMINAR.** Discussions of recent developments and current literature in the various fields of biochemistry. One hour per week.

391 through 393 **MASTER'S THESIS RESEARCH.** Investigation of a research topic under the direction of a staff member, culminating in an acceptable Master's thesis. Credit as arranged.

491 through 493 **DOCTORAL THESIS RESEARCH.** Original research under the direction of a staff member, culminating in an acceptable doctoral dissertation. Credit as arranged.

The Department of Community Medicine

Chairman: Charles S. Houston, M.D., Professors Houston, Mabry, Waller and Weed; Associate Professors Aiken, F. L. Babbott, Golodetz, D. B. Hill, Tormey; Assistant Professors Brusis, Sylwester, J. E. Wennberg, and Whorton; Instructors (Clinical) D. H. Brown, Friedman, D. H. Gray, Lantman, Levine, J. C. Twitchell and Walsh.

The Department of Community Medicine offers students information, principles and experience which will help them fulfill their future responsibilities as practitioners and knowledgeable citizens. The Department shares with the clinical departments a strong concern for the whole patient, and offers a variety of courses and programs directed toward this end throughout the four years of medical school. Research activities include studies of unintentional injury, consumer protection, biometry and aspects of health services delivery and evaluation. The Department is also involved in health service planning, both for Vermont and elsewhere.

BASIC SCIENCE CORE

COMMUNITY MEDICINE. During the spring of the first year an introductory course in Community Medicine is offered. This includes a consideration of social science in medicine, environmental health problems, community health services, and the application of epidemiologic techniques to selected infectious and non-infectious diseases. Students in small groups participate in the identification and solution of selected community health problems. 40 hours.

MEDICAL STATISTICS. This course provides practical instruction in the principles, logic and techniques of statistics as applied to everyday problems in medicine. It includes consideration of random sampling, frequency distribution, probability and significance testing, as well as the place of computerized data processing in medical record keeping and research. First semester, 18 hours.

COMPREHENSIVE CLINICS. Seven monthly comprehensive clinics are held during the first year. Their purpose is the early introduction of students to the application of basic sciences, clinical management of patients and the broader social or community implications of human disease. These clinics are sponsored by the Department of Community Medicine, but include participation of other appropriate departments.

BASIC SCIENCE CORE ELECTIVES. Students are given the opportunity to work with selected families in the practices of several Burlington physicians. Also offered are elective courses in the dynamics of change, drug abuse, and sex education, as are a variety of summer work-study experiences in Vermont and abroad.

CLINICAL SCIENCE CORE

HEALTH CARE SEMINARS. While on their rotation in the Department of Medicine, students meet once a week in small groups to review broad issues such as medical care costs, appropriate use of community health and welfare agencies, the role of allied health personnel, etc. The seminars are informal and the topics largely selected by the students.

SENIOR ELECTIVE PROGRAM

The Department does not offer a prestructured senior major program as such. Instead every attempt is made to match individual student interests and goals with a varied assortment of work-study options. These include (a) family practice preceptorships with individual physicians or medical groups, (b) community hospital externships, (c) evaluation of medical care needs and quality of care, (d) health planning for communities, (e) delivery of health services to deprived populations, and (f) experience in international health.

GRADUATE COLLEGE COURSES

The following elective graduate courses are offered by this Department.

PREREQUISITE—Permission of the instructors.

300 **MEDICAL SOCIOLOGY.** Advanced seminar. First semester,, 3 credit hours.

305, 306 **MEDICAL SOCIOLOGY.** Individual study. By arrangement, 1-3 credit hours.

The Department of Medical Microbiology

Chairman: Warren R. Stinebring, Ph.D. Professors Johnstone, Merchant and Stinebring; Associate Professors B. R. Forsyth, C. A. Phillips and A. Smith; Assistant Professors Boraker, Gallagher, Gump, T. J. Moehring, Novotny and Schaeffer; Instructor Absher; Research Associate Joan Moehring.

The Department of Medical Microbiology, through its teaching program for undergraduate medical students and graduate students, and through the research activities of its members, both faculty and departmental medical or graduate students, proposes to provide training in fundamentals of pathogenic microbiology needed by all students (medical or graduate) of parasitism and training in advanced microbiology, needed by medical or graduate students who expect to undertake teaching or research in this field. Areas of special teaching competence or research interest include: host-parasite relationships at the organismic, cellular, and molecular levels, microbial genetics, immunology and immunogenetics, diagnostic bacteriology and virology, and cell, organ or tissue culture. Medical students, with permission, are encouraged to participate in any of these activities during free or elective time.

BASIC SCIENCE CORE

MEDICAL MICROBIOLOGY. The primary objective of this course is to present to students of medicine those aspects of microbiology which they as *physicians* will find of value. Mechanisms of pathogenesis, mechanisms of host resistance, specific agents causing diseases of viral, bacterial, fungal, and parasitic origin, are discussed with emphasis on the ecologic rather than taxonomic approach. Basic aspects, antibiosis and resistance development, autoimmune diseases and transplantation immunity, viral oncogenesis, "slow" virus infections are topics receiving special emphasis. Laboratory emphasis is on presentation of material which augments lecture material or illustrates how the laboratory can be an aid to the student of microbial disease rather than in developing the laboratory skills of the students.

GRADUATE COLLEGE COURSES

The Department offers programs of study leading to the Master of Science and Doctor of Philosophy degrees. Medical students may also participate in these programs.

PREREQUISITE—Permission of the Department Chairman.

203 THE MAMMALIAN CELL AS A MICROORGANISM. Discussion and laboratory work in problems of cell immortality, transformation, dedifferentiation, synchronization, cell-macromolecule interaction. Laboratory provides foundation in cell culture techniques. Four credit hours.

211 GENETICS OF MICROORGANISMS. Studies of mutation, genetic information transfer, fine structure of the gene, cytoplasmic inheritance, and lysogeny in fungi, bacteria, and viruses. Three credit hours.

302 MEDICAL MICROBIOLOGY. Fundamentals of pathogenic microbiology with emphasis on mechanisms of disease production and mechanisms of resistance to infections. The ecologic rather than taxonomic approach is stressed. Four credit hours.

303 SPECIAL PROBLEMS IN MEDICAL MICROBIOLOGY. Supervised investigations in pathogenic microbiology. Credit as arranged.

322 IMMUNOLOGY. Discussion and demonstrations of theories of antibody formation, antigens, immunoglobulins, cellular immunity and hypersensitivity, problems of transplantation. Four credit hours.

330 VIROLOGY. Discussion and laboratory work in virology, with emphasis on animal viruses. Four credit hours.

340 MEDICAL MYCOLOGY. Discussion and laboratory studies of pathogenic fungi. Four credit hours.

381-389 SEMINAR. Current problems in medical microbiology. One credit hour.

391-393 MASTER'S THESIS RESEARCH. Supervised research leading to acceptable thesis. Credit as arranged.

491-493 DOCTORAL THESIS RESEARCH. Original research leading to acceptable doctoral dissertation. Credit as arranged.

The Department of Medicine

Chairman: William A. Tisdale, M.D.; *Associate Chairmen:* Sinclair T. Allen, Jr., M.D. and Ben R. Forsyth, M.D. Professors E. L. Amidon, Lepeschkin, E. A. H. Sims, Tabakin, Tisdale and Weed; Associate Professors Allen, Beeken, Bland, Bouchard, S. L. Burns, B. R. Forsyth, Gibson, Golodetz, G. M. Green, Hanson, Kelleher, Kunin, Levy, Newcombe, Phillips and Welsh; Associate Professors (Clinical) Eddy, O'Brien and Terrien; Assistant Professors Anderson, Antony, D. Babbott, Caldwell, Dunn, Gump, Horton, Krawitt, Moynihan, D. S. Robinson, Savel, Tannen, Wallace, J. E. Wennberg and Winters; Assistant Professors (Clinical) Alden, R. Amidon, Fitzgerald, Gluck, Holden, E. E. Johnston, Lantman, Lipson, Medivetsky, Milne, Mongeon, Sawabini (Oral Hygiene Dental Medicine), Twitchell and Van Buren; Instructor Runge; Instructors (Clinical) Albright, D. Brown, L. C. Burns, Graveline, W. Jones, Levine, Martenis, Park, W. A. Pratt, Ryan, Ryder, Seagle, Stanilonis, Stouch, Uzsoy, Wainer and Walker. Clinical Associates Colombo, Corley, Friedman, Heininger, Moisan, Saia and Walsh; Postdoctoral Associate G. Powell; Research Associates Herrlich and J. Schultz.

The Department of Medicine has as its three-fold mission the investigation of human disease, scholarly instruction in the disciplines of clinical medicine and the comprehensive care of patients.

Members of the Department have had advanced training in the broad field of internal medicine, and most have additional research or special clinical skills that provide balance and strength throughout the areas of departmental responsibility in hospitals, clinics and laboratories.

As attending or consulting staff physicians at the Medical Center Hospital of Vermont, members of the Department of Medicine provide daily patient care and bedside instruction and supervision for students, house staff, clinical trainees and other physicians. As clinical and laboratory investigators, they bring refined and quantitative methods to bear on problems of human disease, often working as units or teams in laboratory areas within the Medical School complex. Included within the Department of Medicine is the Section of Dermatology.

The many formal and informal departmental conferences, ranging from weekly Medical Grand Rounds to daily bedside rounds, are attended by students, house staff, senior staff and visiting physicians.

BASIC SCIENCE CORE

INTRODUCTION TO THE CLINICAL DISCIPLINES. This course is intended to be a bridge between the basic science core curriculum and the bedside. The primary purpose is to teach the student to elicit a history and perform a physical examination with adequacy and sophistication. Equal in importance is the emphasis on correlation of anatomic, physiologic and biochemical data with clinical findings. It is desired that the student be able to use in a thoughtful way the simple laboratory investigations which are appropriate and required. Using such data, the student learns to construct a data base for each patient and to formulate problem lists. Emphasis is to be placed on practical teaching and supervision at the bedside with the use of illustrative cases. Correlated interdisciplinary seminar teaching is emphasized also.

CLINICAL SCIENCE CORE

CLINICAL CLERKSHIP IN MEDICINE. This consists of a 12-week period designed to provide maximum clinical experience in the hospital setting, with primary emphasis on ward work. The student is now able to apply the principles and methods learned in the core curriculum. The purpose of this clerkship is to involve the student directly in the day-to-day work of a medical unit in conjunction with careful and continuing supervision by attending physicians and house staff. He is encouraged to visualize the patient not as a pathologic process and disorder of function but rather as a social, environmental and psychological entity. He will attend weekly interdisciplinary conferences on common problems in medicine. He will also be encouraged to attend the regular subspecialty conferences and Grand Rounds.

MAJOR PROGRAM

MAJOR PROGRAM IN MEDICINE. The intent of the Major Program is to give the student an opportunity to obtain additional experience in the area of his intended career in medicine, whether this be as primary family physician, a practicing internist or an academic physician. The structure of the major period will be designed by the student and his faculty advisers. One portion consists of a review of applied basic sciences and seminar teaching on the history, ethics and philosophy of medicine. The remainder consists of appropriate elective courses. These

The Department of Medicine

will be offered in general medicine, cardiology, respiratory disease, rheumatology, dermatology and allergy, hematology, neurology, metabolism, endocrinology, renal diseases, infectious diseases, oncology, gastroenterology and research methodology. The student will be encouraged to take part in a research project in any relevant field and write a thesis on the topic of his choice. In conjunction with the elective periods there will be considerable outpatient experience both in the general and subspecialty clinics and on other medical centers.

Section of Dermatology

Acting Chairman: Arthur H. Flower, Jr., M.D. Associate Professor (Clinical) Flower; Assistant Professors Epinette and Madison.

During the Introduction to the Clinical Disciplines course, the student becomes familiar with the methods of history taking and special studies which are unique to this medical discipline, usually by means of case presentations that demonstrate typical primary, secondary and consecutive lesions of the skin.

Case presentations, informal student-instructor conferences and case-centered consultations serve to demonstrate the scientific and bedside aspects of dermatology to the student during his clerkship.

The senior student may elect periods of ambulatory dermatology experience, evaluating patients with skin diseases and discussing them in detail with the attending dermatologist.



Lights from Bailey Library make interesting night pattern.

The Department of Neurology

Chairman: Charles M. Poser, M.D.; *Associate Chairman:* Herbert L. Martin, M.D. Professors Martin, Poser and Schumacher; Associate Professor Mavor; Assistant Professors Elwell, Emery, McKee and D. B. Smith; Instructor (Clinical) O'Shea.

The Department of Neurology provides instruction to undergraduate students in diseases of the nervous system and sponsors a graduate residency training program in Neurology at the affiliated hospital. Interns rotate through the neurological service, resident physicians assist in the instruction of students, and specialty conferences concerned with selected disorders of the nervous system are scheduled weekly. The staff consists of the Chairman, seven full-time and one part-time clinical teachers and seven resident neurologists. The Department is concerned with primary and consultative patient care, clinical research, teaching at undergraduate and post-graduate levels and participation in clinics and regional hospitals as consultants.

BASIC SCIENCE CORE

In the context of the integrated course "Introduction to the Clinical Disciplines," members of the staff provide a brief review of neurophysiology, demonstrate and explain methods of neurological diagnosis, discuss ancillary laboratory techniques, and supervise student performances of bedside neurological examinations.

CLINICAL SCIENCE CORE

During the clinical clerkship on Medicine, the student is assigned for two weeks to the neurological service. Patients with nervous system disease are presented by students at a weekly neurological case presentation conference held for clinical clerks on the floors of the DeGoesbriand Unit of the Medical Center Hospital of Vermont.

MAJOR PROGRAM

Elective periods of research or clinical work in Neurology are available to senior students. In addition to adult neurology, clinical neurophysiology (electroencephalography and electromyography) and child neurology are available. Instruction in neurology is carried out on the inpatient Neurology Service and in the laboratories of the Department. Small groups of students are assigned to newly-admitted patients, obtaining complete neurologic histories and performing neurologic examinations. The students' diagnostic formulation and plan of management are reviewed by neurology house officers and staff. Students attend a number of the regularly scheduled didactic exercises and conferences which include neurology grand rounds, brain cutting sessions, neuroradiology review, joint sessions with neurosurgery and Journal Club, as well as other related specialty conferences when held.

The Department of Obstetrics and Gynecology

Chairman: John Van S. Maeck, M.D.; *Associate Chairman:* Herbert A. Durfee, Jr., M.D. Professors Maeck and Slavin; Professor (Clinical) Solomon (Endocrinology); Associate Professors Boardman, Durfee, Eastman and Mary J. Gray; Associate Professor (Clinical) Burchell; Assistant Professors Lewis, Meeker, Schwallb and W. F. Sims; Assistant Professors (Clinical) Cannon, Russo, Taber and W. Thabault; Instructors (Clinical) R. E. Davis, Granai and Romeyn.

BASIC SCIENCE CORE

Members of the Clinical Faculty of Obstetrics and Gynecology in association with the Basic Science Faculty present appropriate clinically oriented material in anatomy, pathology, introduction to clinical medicine, community medicine seminars, etc.

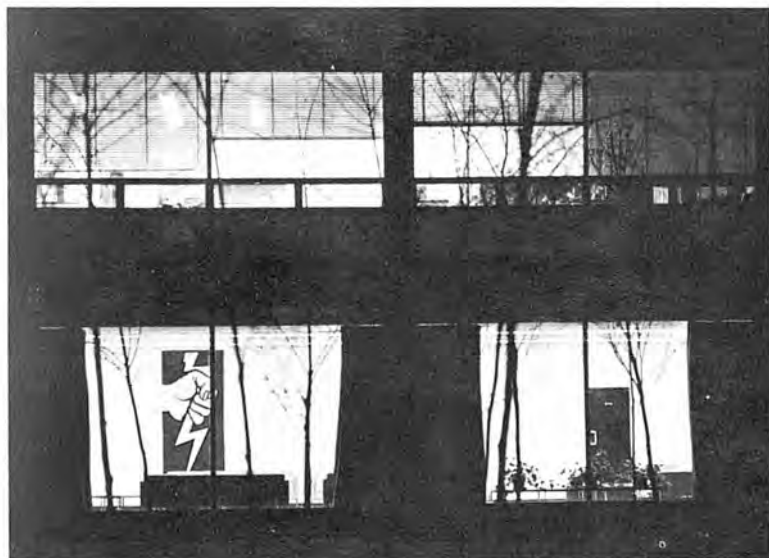
CLINICAL SCIENCE CORE

The Clinical Core Program in Obstetrics and Gynecology consists of 8 weeks of intensive academic and practical experience in the classroom and the hospital. Emphasis is placed on the fundamentals of female reproduction, understanding psycho-sexual problems, the physiology, pathology and therapy of obstetric and gynecologic problems commonly met by physicians in many branches of medicine. In keeping with the philosophy of the Core Program, the detailed technique of delivery room and operating room procedure is not stressed. It is deemed important, however, to expose each medical student to the birth process and to ensure an understanding of reproductive physiology and its implications to medicine and society. The students rotate through: labor, delivery and postpartum areas; gynecology and the operating room; outpatient department and private preceptorship. The clinical experience is supplemented by frequent small group tutorial sessions with a faculty member, resident teaching seminars, Obs-Gyn radiology review, literature review, grand rounds and staff meetings.

At the end of his experience in the Obs-Gyn Core Program, it is expected that in addition to being able to take a general medical history and perform a general physical examination, the student will be able to diagnose pregnancy, adequately examine the breast, pelvis, rectum, and will have acquired the necessary skill to perform simple diagnostic tests such as the proper collection of material for cytologic smear and for the detection of gynecologic infection. He will have developed the ability to cope intelligently with this data and to relate clinical observations to the basic sciences and to integrate information relevant to the sexual reproductive system with information relative to the general medical, psycho-sexual and economic status of the patient.

SENIOR MAJOR PROGRAM

The Department of Obstetrics and Gynecology offers a Senior Major Program for those interested in a career in Obs-Gyn, Family Medicine or related areas. Each student will take a 6-week basic science review course oriented towards Obs-Gyn plus 6 weeks each in obstetrics, gynecology and clinical medicine. The remainder of the program is elective according to the needs of the individual student. Clerkships in obstetrics, gynecology, obstetrics-gynecology for the family physician and extramural programs in Obs-Gyn are offered to students in other Senior Major Programs.



Night scene across courtyard of Given Medical Building.

The Department of Ophthalmology

Chairman: John C. Cunningham, M.D., Shipman Professor of Ophthalmology, Professor Cunningham; Associate Professor M. C. Twitchell; Assistant Professor (Clinical) Irwin; Instructors (Clinical) Guiduli and Kleh.

CLINICAL SCIENCE CORE

The Department of Ophthalmology and the Section of Otolaryngology participate in the course on Introduction to Clinical Disciplines in the second year.

In the third year each student is assigned to clinical work in the Department of Ophthalmology, involving outpatient care, hospital rounds and procedures, conferences, intensive individual instruction and assigned reading.

MAJOR PROGRAM

In the Major Program, elective courses will be offered. These courses involve interdisciplinary arrangements with other departments as needed. An elective course may be individualized to the needs of the student, but among the possibilities offered are: Ear, nose and throat problems in general practice; pediatric otolaryngology; otology and audiology in children; basic audiology; head and neck oncology; neuro-otology; broncho-esophagology; radiographic interpretation in the head and neck; eye problems in general practice; pediatric ophthalmology; facial and temporal bone injuries; office practice in ophthalmology, and neuro-ophthalmology.

The Department of Orthopaedic Surgery

Chairman: Franklin T. Hoaglund, M.D. Professor Hoaglund; Associate Professor Wuthier; Assistant Professor Frymoyer; Associate Professors (Clinical) J. F. Bell, Kuhlman and Rust; Assistant Professors (Clinical) P. H. Davis, Molloy and Simpson.

Orthopaedic Surgery covers a broad field of medicine which is concerned with diseases, conditions, and injuries involving the musculo-skeletal system. The Department of Orthopaedic Surgery has as its prime responsibility the instruction of medical students, house staff, as well as nurses and therapists, in the diagnosis, prevention, and management of problems as related to the musculo-skeletal system. The Department is involved in on-going research programs, both basic and clinical, in the areas of arthritis, traumatic injury, and rehabilitation. All members of the Department are involved in acute and chronic patient care. There is a fully approved orthopaedic residency training program at the Medical Center Hospital of Vermont for six residents in children's and adults' orthopaedics, as well as trauma.

Members of the Orthopaedic Department staff and orthopaedic residents participate in the teaching of medical students in all four years of the curriculum. Members of the staff, including orthopaedic residents, participate in the teaching of anatomy. Lectures are given in physical diagnosis of musculo-skeletal disease and deformity in the Introduction to Clinical Disciplines.

Students are assigned to Orthopaedic Surgery during the Clinical Science Core for both didactic instruction and for the opportunity to examine orthopaedic inpatients and participate in their treatment. Students attend the children's orthopaedic clinic and the general orthopaedic outpatient clinic. Students have regular assignments in the care of patients in the emergency room at both units of the Medical Center Hospital and are encouraged to participate in the operating theater.

Electives are open to interested students during the senior year or the major elective period. At this time there is further opportunity to participate in the care of both inpatient and outpatient orthopaedic patients and to assist as members of the operating team. Limited facilities are available for interested students to pursue both basic and clinical research.

The Department of Pathology and Oncology

Chairman: Robert W. Coon, M.D. Professors Andrews, Coon, Craighead, Korson, Kusserow and Luginbuhl; Associate Professors Clemmons, Rice, E. Stark, Helene W. Toolan (Experimental Pathology), and Trainer; Assistant Professors Buttles, Duffell, Flory, Harris, Howard, Kaye, Picoff, J. W. Smith and Taylor; Instructor Hooper; Instructor (Clinical) German.

The interests and responsibilities of the Pathology faculty include teaching, research, and the practice of both anatomic and clinical pathology in the affiliated teaching hospitals. The diversity of interest and variety of responsibility within the staff as represented by these activities create an ideal atmosphere for the introduction of students, interns and residents to the study of disease in all of its manifestations.

The Department has responsibilities for the instruction of medical students, graduate students, interns, residents, fellows, and trainees.

BASIC SCIENCE CORE

The major course in Pathology is presented as a part of the Basic Science Core and is designed to present a concentrated, yet comprehensive view of disease in sufficient depth to prepare the student adequately for subsequent clinical studies. Fundamental principles are emphasized and the structural, functional, and clinical correlations are stressed.

Although the organization of the course involves the traditional division into general and special pathology, the emphasis is considerably modified. Pathophysiological correlations are stressed. The teaching format varies, ranging from formal lectures to small informal discussion groups. A student is encouraged and assisted to develop for himself a pattern of self education. Extensive use is made of clinical case studies, frequently in lieu of "loan set slides." Use is also made of gross material, both fresh and preserved. In addition to the loan slide collection, visual aids are used in the classroom and laboratory.

Instruction in clinical pathology is closely correlated with the work in general and special pathology. Instruction in clinical pathology is designed to acquaint the student with laboratory medicine, including the tests available in the clinical laboratory, the value and limitations of these tests, and the interpretation of results. Emphasis is placed on the clinical application of laboratory data and the integration of the data with other clinical findings.

Recently a major effort has been made to do integrated teaching with other departments.

CLINICAL SCIENCE CORE

During the Clinical Science Core portion of the curriculum, the Department of Pathology cooperates with other clinical departments in providing instruction. This includes collaborating on and presenting departmental and specialty conferences, clinical pathological conferences, consultation on clinical problems, and supervision of laboratory tests performed by medical students on patients assigned for their study.

MAJOR PROGRAM

We anticipate having appropriate courses in pathology for both "majors" in pathology and those in other clinical departments. Elective courses will primarily provide in-depth instruction in selected areas of pathology. On the other hand, for those students particularly interested in pathology there will be an opportunity for greater exposure to the field while at the same time continuing their in-breadth education as physicians.

GRADUATE COLLEGE COURSES

PREREQUISITE—Permission of the Department Chairman.

201 HISTOCHEMISTRY. A survey of techniques used for chemical identification of cellular and tissue components, including discussion of underlying theories. Prerequisite: an acceptable course in cell structure (e.g., Anatomy 311, Botany 256); Chemistry 131-132; permission of the department. A course in biochemistry is strongly recommended. Credit as arranged.

301-302 GENERAL AND SPECIAL PATHOLOGY. This is similar to the course for second-year medical students except it does not include the course work in clinical pathology. It may be taken by graduate students who have proper prerequisite training. Lectures and conferences total for year, 80 hours. Laboratory: total for year, 160 hours. Ten credit hours total.

By special arrangement, properly qualified graduate students may be permitted to enroll for the first portion of the course only with credit hours to be arranged.

310, 311, 312 ADVANCED PATHOLOGY. Supervised practical experience in handling, processing, and diagnosis of pathological materials. Participation in departmental seminars and conferences. Prerequisite: 301-302; permission of department. Credit as arranged.

391, 392, 393, 394 THESIS RESEARCH. Investigation of a research topic under the direction of a staff member, culminating in an acceptable Master's thesis. Prerequisite: Courses 301 and 302. Credit as arranged.

The Department of Pediatrics

Chairman: R. James McKay, M.D. Professors Lucey and McKay; Professor (Clinical) Sussman; Assistant Professors Antony and Hodgkin; Assistant Professors (Clinical) Gentry, McKee, Paxson and Stackpole; Instructor Carol F. Phillips; Instructors (Clinical) Bates, Elizabeth Clark, Murray, Narkewicz and Swartz; Clinical Associate Friedman.

The Department seeks through its required course to give each student a grounding in pediatrics which will enable him or her to handle children successfully in whatever branch of medicine is eventually practiced by the student. Particular emphasis is put on doctor-child-parent relationships. Emphasis is also placed on giving the student some perspective on the practical aspects of pediatrics through exposure to the teaching of an active practitioner during one of the two months of clinical clerkship.

The Department also takes the responsibility for pediatric training of interns and residents in the Medical Center Hospital of Vermont in Burlington.

CLINICAL SCIENCE CORE

CLINICAL PEDIATRICS. A two-month clinical clerkship with daily teaching rounds on the pediatric floors of the Medical Center Hospital of Vermont. Each student participates actively in the care of inpatients, spends under supervision one afternoon a week seeing patients in an outpatient clinic, one afternoon a week seeing patients in a child-health clinic, and one day at Brandon Training School.

MAJOR PROGRAM

MAJOR PROGRAM IN PEDIATRICS. Sixteen months during which, in order to provide continuity, the student will participate on a monthly or bi-monthly basis in each of the following clinics: allergy, birth defects, child development, child health, congenital heart, pediatric diagnostic, pediatric follow-up (chronic disease), pediatric psychiatry, school health, and speech and hearing. There will also be monthly basic science seminars to stimulate in-depth study and discussion of the basic science aspects of particular pediatric problems brought up by the clinical experience of the student. The time not devoted to these continuing experiences will be distributed as follows: 3 weeks, clinical microbiology; 6 weeks, inpatient clinical clerkship; 6 weeks, clinical clerkship on nursery service; 3 weeks, preceptorship with a pediatric practitioner; 42 weeks, elective or electives (after discussion with and approval of the Chairman of the Department of Pediatrics).

ELECTIVE COURSES.

AMBULATORY AND COMMUNITY PEDIATRICS. Clinical clerkship in pediatric outpatient facilities of Medical Center Hospital of Vermont or other approved pediatric departments. Participation in the activities of community clinics offering health care to children is an integral part of this rotation.

HOSPITAL PEDIATRICS. Clinical clerkship in inpatient facilities of the Medical Center Hospital of Vermont or other approved pediatric department. Six weeks.

NEONATAL PEDIATRICS. Clinical clerkship on nursery service of Medical Center Hospital of Vermont or other approved pediatric department. Six weeks.

RESEARCH PEDIATRICS. Supervised work in an approved pediatric research laboratory at the University of Vermont or other medical center, or the carrying out under supervision of an approved specific clinical research project. Twelve weeks.

PRACTICE OF PEDIATRICS. Assignment to work with an approved pediatrician in his practice. Three weeks.

PEDIATRIC CARDIOLOGY. See Department of Medicine.

PEDIATRIC NEUROLOGY. See Department of Neurology.

PEDIATRIC ORTHOPEDICS. See Department of Orthopedics.

PEDIATRIC PSYCHIATRY. See Department of Psychiatry.

PEDIATRIC Radiology. See Department of Radiology.

PEDIATRIC Surgery. See Department of Surgery.

The Department of Pharmacology

Chairman: Durwood J. Smith, M.D. Professors Gans, Jaffe, Macmillan, Maxwell (Visiting) and D. J. Smith; Associate Professors A. P. Gray, McCormack and Reit; Assistant Professors Doremus (Director of Animal Services), and D. S. Robinson; Instructor Wallace.

BASIC SCIENCE CORE

The pharmacology course for medical students is taught in rough correlation with the course sequence of the Department of Pathology during the first period of the second year. The course surveys the principal classes of therapeutic agents and stresses the basic principles of pharmacodynamics and drug action. Information is conveyed by means of lectures, teaching films, demonstrations, discussion groups, and a few laboratory exercises. Students are encouraged to supplement knowledge about drugs in which they are especially interested by means of optional laboratory exercises designed with the help of the staff.

GRADUATE COLLEGE COURSES

The Department of Pharmacology offers graduate programs leading either to the degree of Master of Science or Doctor of Philosophy. Facilities are available for properly qualified students and others for research either independently or in co-operation with members of the staff.

PREREQUISITE—Permission of the Department Chairman.

301 PHARMACOLOGY. This is the course given in the medical curriculum, with such modifications for the individual graduate student as are required. Lectures, conferences and demonstrations, 70 hours; laboratory, 56 hours. Eight credit hours.

326 EXPERIMENTAL SURGERY. Application of surgical techniques for research in pharmacology, physiology and experimental biology and medicine. Experimental surgery of the gastrointestinal tract, kidney, cardiovascular and endocrine systems will be emphasized. Prerequisite: a basic course in physiology. Two hours. Dr. Gans.

372, 374, 376 SPECIAL TOPICS IN PHARMACOLOGY. Topics of current interest and importance in pharmacology are considered in depth through presentations by graduate students and staff. During each year a specific theme of study will be developed. Prerequisite: Permission of the Department. One credit hour per semester.

381, 383 SEMINAR. General topics are presented by students, staff members and visiting scientists. Organized surveys of selected fields may be presented upon request. One x 1 hour per week. Offered both first and second semesters. Open to all properly qualified graduate students. One credit hour per semester.

391 through 399 MASTER'S THESIS RESEARCH. Investigation of research topic under the direction of an assigned staff member, culminating in an acceptable Master's thesis. Credit as arranged.

491 through 499 DOCTORAL THESIS RESEARCH. Original research under the direction of an assigned staff member, culminating in an acceptable doctoral dissertation. Credit as arranged.



Horseback riding near Stowe.

The Department of Physiology and Biophysics

Chairman: Norman R. Alpert, Ph.D. Professors Alpert, Nyborg and Tabakin; Associate Professors Caldwell, Chambers, Hanson, Kelleher, Kusserow, McCrorey, Patterson and Webb; Assistant Professors Farber, Halpern, D. B. Hill; Levy, Musty, Parsons and Whitehorn; Instructor Schnitzler; Instructors (Clinical) Hamrell and MacDonald; Research Associate Lucchina.

BASIC SCIENCE CORE

MEDICAL PHYSIOLOGY AND BIOPHYSICS. Physiology and Biophysics is taught as a science to the first-year medical students, in the second trimester, with emphasis being placed on the broad physical, chemical and biological principles underlying the function of the main organ, tissue and subcellular systems. Special stress is placed on those phases which are the scientific basis of clinical medicine and research. The core course consisting of 110 hours is made up of lectures, demonstrations, conferences and laboratories.

NEUROSCIENCE. The core course in neuroscience outlines morphological and physiological features of the neuron and the central nervous system. The functional significance of structure is emphasized throughout, in order to prepare the student for intelligent diagnosis and localization of neural disorders in the clinical sciences. The course is offered in the second trimester.

MAJOR PROGRAM

There is a vigorous graduate and research program in the Department. Medical students may participate in the advanced seminar type course work, as well as in the various research projects.

GRADUATE COLLEGE COURSES

Under special circumstances medical students may take advantage of the opportunity for graduate study leading to a Master of Science or a Doctor of Philosophy degree. For further details on the graduate program see the catalogue of the Graduate College or write for the Department's brochure. A number of fellowships are available for summer research or graduate study.

PREREQUISITE—Permission of the Instructor of course.

301 PHYSIOLOGY AND BIOPHYSICS. This course is taught as a science to the first-year graduate students, in the second trimester, with emphasis being placed on the broad physical, chemical and biological principles underlying the function of the main organ, tissue and subcellular systems. Special stress is placed on those phases which are the scientific basis of clinical medicine and research. The core

course consisting of 110 hours is made up of lectures, demonstrations, conferences, and laboratories. Special Problem Seminar 303 is associated with this course and is given concurrently.

302 NEUROSCIENCE. A correlated presentation of the neuroanatomy and neurophysiology of mammalian CNS. The course will consist of lectures, demonstrations, and laboratory. The laboratory work consists of both microscopic examination of the nervous system and gross dissection of the human brain. Clinical presentation of patients with neurological deficits are demonstrated when appropriate. To be given jointly by the Departments of Physiology and Anatomy. 4 credit hours.

303 through 306 SPECIAL PROBLEMS IN PHYSIOLOGY. These courses, open to qualified students by arrangement with the staff, will cover various special problems by means of lectures, seminars, and directed reading. Hours and credit as arranged.

308 BIOMETRICS AND APPLIED STATISTICS. This course is designed as an introduction to the rational use and evaluation of statistical methods in the planning of experiments and the interpretation of biological data. Topics include measures of central tendency and dispersion; "t"-test and analysis of variance; correlation and regression; chi-square; non-parametric methods; experimental design. The course includes a biometrics laboratory. Course limited to ten students. Prerequisite: Math. 110 or equivalent. Five hours credit.

Dr. McCrorey

309 THE PHYSIOLOGY OF SYNAPTIC AND CONDUCTING MEMBRANES. The mechanisms of synaptic transmission and nerve and muscle conduction will be explored, with particular emphasis on molecular structure and function. Prerequisites: Physiology 301, Biochemistry 301-302. Three hours. Alternate years. 1969-70.

Dr. Webb

310 THE MOLECULAR BASIS OF BIOLOGICAL MOTILITY. This is an advanced course dealing with the molecular basis of muscle contraction and biological movement. The problems of energetics, mechanics and chemistry of biological motility will be considered in detail. Special emphasis will be given to the contraction of skeletal muscle. There will be some discussion of pathology, pharmacology and the comparative physiology of muscle related to the areas designated above. Lectures and conferences. Three hours, one semester. Prerequisites: Physiology 301, Biochemistry 301-302. Alternate years. 1970-71.

Dr. Alpert

311 SPECIAL SENSE RECEPTORS. Function of receptor cells from the standpoint of stimulation and response. Specific sense receptors will be considered. Assigned reading in the research literature with seminar discussions. Prerequisite: Physiology 301. Three hours. Alternate years 1969-70.

Dr. A. Chambers

The Department of Physiology and Biophysics

314 THE PHYSIOLOGY AND BIOPHYSICS OF THE CIRCULATION. This course deals with the principles underlying the regulation of circulation. Special emphasis will be given to a consideration of the physiological adjustments to exercise. The course will consist of reading and discussing articles, monographs and reviews. It will be a seminar type course limited to ten students. Three hours. Alternate years. Prerequisite: Physiology 301. 1969-70. Drs. Tabakin, Hanson and Levy

315 THE PHYSIOLOGY AND PHARMACOLOGY OF SYNAPSES. A comparative study of synaptic connections in invertebrate and vertebrate species will be undertaken, with emphasis on their ultrastructure, pharmacology, and physiology. Prerequisites: Physiology 301, Biochemistry 311-312, permission of the instructor. Three hours, one semester. Alternate years. 1970-71. Dr. Parsons

321, 322 CELLULAR PHYSIOLOGY AND BIOPHYSICS. Fundamental physical and physiochemical properties of living cells. The reading of original scientific papers in the area covered will be stressed. Prerequisite: permission of the department chairman. Hours and credit as arranged. Staff

323 PRINCIPLES AND ELEMENTS OF BIOMEDICAL INSTRUMENTATION. This course is designed for the biologically-trained researcher to provide a firm understanding of instrument methodology which is inseparable from intelligent planning and execution of experimental investigations. Topics include basic electrophysics; input and output transducers; the concepts and manipulation of bioelectric and other signals; fundamentals of computers, electrochemical and gas measurements; physiological instrument systems. A laboratory using biological material will support these theoretical ideas. Course limited to twelve students. Prerequisites: permission of the instructor. Five hours. Mr. Halpern and staff.

381 through 389 SEMINAR. These courses are designed to review recent developments and literature. Topics are presented by students, staff, and by visiting scientists. Hours and credit as arranged.

391 through 394 THESIS RESEARCH. Investigation of a research topic under the direction of an assigned staff member, culminating in an acceptable Master's thesis. Credit as arranged.

491 through 499 THESIS RESEARCH. Investigation of a research topic under the direction of an assigned staff member, culminating in an acceptable Doctor's thesis. Credit as arranged.

The Department of Psychiatry

Acting Chairman: Hans R. Huessy, M.D.; Professor Huessy; Associate Professors Folta (Sociology), Mitchell (Anthropology) and W. A. Woodruff; Associate Professors (Clinical) Brooks, Cohen, Hyde, Laqueur and Young; Assistant Professors Bingham (Social Work), Chiu, McAree, Nies, Oliveau, Ravaris, Thomson (Social Work) and Weaver (Psychology); Assistant Professors (Clinical) Agnew, Deane (Sociology), Leitenberg (Psychology), Leopold, McGinniss, Rife, Thomas, Todd and J. M. Toolan; Instructors (Clinical) Burnham, Covey, Forsberg, Elizabeth H. Forsyth, Marshall, Murphy, O'Shea, Sharpe, Sommer, J. N. Stark, Stewart (Social Work), and Treial; Clinical Associate Brewster; Research Associate Lincoln.

While the primary and most obvious responsibility of this Department is the teaching of Psychiatry as a special discipline of Medicine dealing with the diagnosis and treatment of emotional disturbance and mental illness, its task is not confined to this. It also includes the presentation of the behavioral sciences as part of the basic science preparation in the preclinical years and the application of behavioral sciences to disturbed behavior, i.e., Psychopathology. Its teaching also has relevance to medical practice overall. It includes presentation of a body of knowledge concerning human behavior, and techniques for understanding and managing interpersonal relationships, which are utilized by all physicians whatever their field of endeavor.

A residency program approved for three years of training by the Council on Medical Education of the American Medical Association is carried on by the Department in conjunction with the affiliated hospitals. Residents rotate through the general hospitals and state hospital, and affiliations with other mental health agencies are available in the later years of the residency. In addition to the regular clinical teaching and conferences in the hospitals, an academic program of seminar instruction is carried on within the Department during the academic year.

Fourth- and fifth-year fellowships in Community Psychiatry, Transcultural Psychiatry, Behavior Therapy and Psychopharmacology are available.

BASIC SCIENCE CORE

311-312 BEHAVIORAL SCIENCE. This is a general course in behavioral science and its relation to medicine for freshman medical students. A behavioral science "point of view" is characterized by an interdisciplinary approach to the understanding of human behavior. It focuses on observable behavior and stresses the study of the multiple factors that influence the individual's behavior within his environment. The behavioral sciences from which data are drawn include anthropology, experimental psychology, social psychology, and sociology. The course is presented in two series of small group seminars. The first examines the setting and practice of medicine; the second examines specific forms of human behavior such as sexuality, pain, aggression, and death.

The Department of Psychiatry

312-322 PSYCHOPATHOLOGY. This course is concerned with giving the student a clear understanding of psychiatric terminology, systems of classification, the major syndromes encountered in psychiatry and establishes a basis for an approach to the observation of psychiatric patients. It includes a basic approach to biological and environmental theories of etiology, including a short exposition on psychodynamic theory. The major treatments in psychiatry are discussed, including physical, pharmacological, psychological and social approaches. The course is organized around the presentation of audio-visual material in the form of short films. Small group discussions with the presentation of clinical cases are utilized in the later part of the course.

CLINICAL SCIENCE CORE

PSYCHIATRY. This is the principle clinical course in psychiatry and consists of an eight-week block of time. The main assignments are as a clinical clerk on the psychiatric service of the Mary Fletcher or DeGoesbriand Memorial Unit and the Vermont State Hospital, studying inpatients and outpatients and participating in all regular teaching exercises and conferences. In addition to clinical exercises, students participate in didactic and seminar instruction. Additional assignments offer clinical experience in mental hospitals and visits to other mental health agencies so that the student sees an extended range of patients. Individualized programs can be arranged through the Department.

MAJOR PROGRAM

PSYCHIATRY. Detailed plans for the senior major in psychiatry are still evolving. It is anticipated that this will be chosen by students who intend to pursue a career in psychiatry. The general format will be some combination of:

- a. A basic science block emphasizing those disciplines which most contribute to the preparation of a psychiatrist, e.g., physiology, biochemistry, neurophysiology, neuroanatomy, behavioral and social sciences, and so forth.
- b. Additional clinical assignments on the psychiatric service.
- c. Additional assignments on other clinical services, e.g., medicine, pediatrics, neurology.
- d. Elective assignments.

PSYCHIATRY AS PART OF OTHER MAJORS. Courses in clinical psychiatry will be offered as part of Senior Majors in other departments.

PSYCHIATRIC ELECTIVES. A range of elective placements will be available and also a variety of opportunities for summer work in either a clinical or a research position.

The Department of Radiology

Chairman: A. Bradley Soule, Jr., M.D. Professors Roth (Electrical Engineering) and Soule (Emeritus); Associate Professors Foley, Janney (Radiologic Physics), Kupic, Peterson, Ring (Neuroradiology and Radiologic Anatomy), Tampas (Pediatric and Cardiac Radiology) and Van Buskirk; Assistant Professors Clements, Guare, and Hunziker; Instructors Bannister (X-ray Technique), G. S. Brown, Heilman, W. H. Johnston, Mindell and Saxby; Clinical Associate Holm; Tutor Kasenter (Radiologic Physics); Lecturers Harwood and Izzo. (Radiologic Physics).

The Department of Radiology provides special services to local teaching hospitals and to community hospitals in central and northwestern Vermont. In addition, medical students, residents, nurses and x-ray and isotope technicians receive instruction by members of this Department.

Twelve staff members work full time in radiology in the teaching hospitals and the College of Medicine.

The teaching of radiology extends through the entire four years. In conjunction with the Department of Anatomy, lecture-demonstrations of the normal roentgen anatomy are given during the first year. In conjunction with the Department of Physiology, fluoroscopic demonstrations of the chest and alimentary tract are conducted at the hospitals. During the first part of the second year, students are instructed in the principles of diagnostic and therapeutic radiology. During the clinical core numerous conferences are held in conjunction with the various clinical departments. An elective in radiology and in its various subspecialties is offered during the final year.

A fully accredited residency program is available and utilizes the facilities of the College of Medicine and cooperating hospitals. Staff members participate in nearly all of the teaching conferences of the College of Medicine.

The Department of Rehabilitation Medicine

Acting Chairman: Raymond L. Milhous, M.D. Assistant Professors Ford and Milhous.

Program of Instruction: Instruction in rehabilitation medicine for medical students and other students in the health professions is at present conducted in association with other departments in the College of Medicine.

The Department of Rehabilitation Medicine was established in the College of Medicine of the University of Vermont in February 1966. Department offices are presently at the Vermont Rehabilitation Center, which is operated by the State of Vermont in association with the College of Medicine. The purpose of the Department is to establish patient services in physical medicine and rehabilitation in the University teaching hospitals and the Rehabilitation Center; to teach students in the health professions, and to conduct research in this area of medical practice.

The prevention and early recognition of disability will be stressed in the patient care and teaching programs of the Department. Evaluation of the several aspects of a patient's handicap is performed by objective testing methods such as electromyography, performance of activities of daily living, psychologic testing, and by observation of behavior patterns and attitudes.

The Department utilizes the resources of various departments in the College of Medicine and other areas of the University. It complements the diagnostic and therapeutic efforts of other departments in the College of Medicine by establishing a diagnosis of disability. Treatment and counseling relative to the disability are emphasized employing the talents of counselors and therapists, as well as physicians. Included among the health professions which participate are specialists in vocational counseling, hospital administration, physical therapy, occupational therapy, speech pathology, psychology, industrial arts, rehabilitation nursing and social work.

Among the objectives of the Vermont Rehabilitation Center is the development of out-of-hospital services that will be available throughout the State and the provision of training for health professionals in rehabilitation in Vermont and the "health region" served by the University of Vermont.

Liaison is maintained with the official and voluntary agencies which are interested in rehabilitation.

The Department of Rehabilitation Medicine is concerned with the development of a service to evaluate human function that is diminished or lost through congenital

or acquired disability. It offers therapy and counseling services designed to shorten the period of convalescence following acute illness or injury; to render a diagnosis of disability and to evaluate its effect on the individual, his family and his community; to return disabled people to work or to school, or to the highest level of self-care that is possible.

Summer Fellowships in Rehabilitation: The Rehabilitation Services Administration of the Department of Health, Education and Welfare supports a number of Summer Fellowships in Rehabilitation. These are available for periods of two or three months, during which time the student receives an appropriate stipend. The student is associated with members of the faculty and house staff in the Department of Rehabilitation Medicine. Students become acquainted with the types of patients that are referred to a rehabilitation service and with the techniques and methods used by the allied health professions, official and voluntary community health and welfare agencies and with the large number of other services which are needed by patients with long-term illness and disability.

It is hoped that some of the Summer Fellows will become interested in rehabilitation medicine to the extent of selecting it as a career. More important, an effort is made to develop a broad understanding of this field of medicine so that students who participate will be better physicians and will understand that rehabilitation services are an essential part of good medical care.

MAJOR PROGRAM

An elective in Rehabilitation Medicine is offered during the major program. The duration of this elective is six weeks. During this period the student is associated with members of the faculty in the Department of Rehabilitation Medicine. He is introduced to the mission and some of the techniques of rehabilitation medicine. He is associated with department staff when rehabilitation goals for patients with disabilities are established. He will attend ward rounds, rehabilitation team conferences, and other departmental activities.

It is anticipated that the student who completes this elective will have a good idea of rehabilitation medicine and will have some understanding of the use of the allied health sciences which are associated with rehabilitation. The role of official and voluntary health agencies which are concerned with rehabilitation and long-term medical care is stressed.

The Department of Surgery

Chairman: John H. Davis, M.D. Professors Davis and Mackay; Professors (Clinical) Gladstone and Page; Associate Professor Abrams; Associate Professors (Clinical) Farnham and Truax; Assistant Professors Bunker, Foster and Pilcher; Assistant Professors (Clinical) Barney (Plastic), Cain, Haines, (Oncology), Keller, Linton (Plastic), McGill, McSweeney and Shea; Instructor (Clinical) Thabault.

In addition to developing and implementing the surgical curriculum in the College of Medicine, the Department of Surgery is responsible for the training of interns and surgical residents at the Medical Center Hospital of Vermont. The Department consists of the following divisions: Anesthesiology, Neurosurgery, Otolaryngology, Pediatric Surgery, Thoracic and Cardiac Surgery and Urology.

BASIC SCIENCE CORE

Members of the staff of the Department of Surgery participate in the multidiscipline course "Introduction to Clinical Disciplines" which includes history-taking, physical diagnosis and the pathophysiology of disease.

CLINICAL SCIENCE CORE

The twelve-week core program in clinical surgery emphasizes the hospital care of patients with surgical illnesses. Students assigned to a surgical floor work as members of a team that includes the intern, resident staff and attending surgeons. The student is responsible for the initial history and physical examination of patients assigned to him and participates in all aspects of patient care, including operative procedures. Continuity of care is stressed. A two-week assignment in the Emergency Room is included in the rotation as well as a two-week elective rotation on a specialty section of the Department of Surgery. Instruction in general surgery is at the bedside; didactic material is presented throughout the twelve-week program by the staff of the specialty sections. Students take night and week-end call with the members of their house staff team.

MAJOR PROGRAM

The Department of Surgery offers a Major Program to students seeking a career in general surgery or a surgical specialty. Three months are spent in a basic science review that is oriented to clinical surgical practice. Under the guidance of an advisor from the surgical faculty, students elect from a variety of programs in surgery or in other departments within the College, including the Basic Science Departments. The Major student has the opportunity to serve a preceptorship with one of the senior attending surgeons on the staff. Rotations are offered at hospitals other than the Medical Center Hospital and students are encouraged to take elective rotations at hospitals throughout the country. An opportunity to participate in on-going research projects within the Department of Surgery is also available.

Section of Anesthesiology

Chairman: John Abajian, Jr., M.D. Professor Abajian; Associate Professors (Clinical) Dente and Mazuzan; Assistant Professors (Clinical) Dean, Hartford, Pease and Shinozaki; Instructors (Clinical) R. Bell and Falkenberg; Research and Clinical Associate Ikeda.

The third-year instruction will be confined to intensive, small-group, operating room didactic and practical experience. A two-week elective program for fourth-year students is available on the surgical rotation.

A full month of elective may be taken with special permission. Weekly anesthesia conferences are open to students. The resident training program consists of the appointment of six residents for two years.

Section of Neurosurgery

Chairman: R. M. Peardon Donaghy, M.D. Professors (Clinical) Donaghy and Wallman; Associate Professor Numoto (Experimental); Associate Professor (Clinical) Flanagan.

The Section of Neurosurgery exists for four main purposes; research, teaching, therapy of neurological conditions by surgical measures, and aid to all regional practicing physicians via the medium of consultation.

Second-year students meet in small clinical conferences and share in combined conferences on neuropathology and neuroradiology.

They serve as clinical clerks and gain experience in the presentation of patients in conference, the preparation of patients for presentation and the preparation of a bibliography.

They are welcomed to the daily neurosurgical rounds and the weekly staff conference, as well as to the Monday noon teaching hour for residents.

An elective in neurosurgery is offered to those fourth-year students who are certified by the Dean of Medicine to be in the upper third of the class and who have demonstrated aptitude for both neurology and general surgery. This may be taken in clinical or experimental neurosurgery.

Those who choose clinical neurosurgery make complete daily ward rounds, work up selected patients, assist in the operating room, perform ward duties under direction such as lumbar punctures and dressings (both by the neurosurgical tech-

The Department of Surgery

nique) and spend time in the offices of attending neurosurgeons watching the combined neurological and surgical approach to problems.

Those who select experimental neurosurgery will take part in current research projects and obtain experience in surgery in the laboratory, principles of research and statistics. A full-time neuro-physicist is available to the beginning researcher for consultation. An opportunity is afforded the student to work with and learn from the Fellows and foreign visitors to the service.

A four-year residency program is offered.

Neurosurgical services are maintained in each unit of the local teaching hospital.

Section of Otolaryngology

Acting Chairman: Charles F. Tschopp, M.D. Assistant Professor Tschopp; Assistant Professors (Clinical) Goldsborough and Heisse; Instructors (Clinical) Falkenberg and McGinnis.

CLINICAL SCIENCE CORE

The Section of Otolaryngology participates in the course on Introduction to Clinical Disciplines in the second year by providing instruction in the physical examination of the ears, nose and throat.

In the third year the Section of Otolaryngology offers four hours of didactic lecture in clinical otolaryngology, eight hours of practical experience in otolaryngology carried out in the private offices.

MAJOR PROGRAM

In the Major Program, elective courses will be offered. The courses are offered in conjunction with the Department of Ophthalmology and with other departments as needed. An elective course may be individualized to the needs of the student, but among the possibilities offered are: Ear, nose and throat problems in general practice; pediatric otolaryngology, otology and audiology in children; basic audiology; head and neck oncology; neuro-otology; broncho-esophagology; radiographic interpretation in the head and neck, and facial and temporal bone injuries.

Section of Pediatric Surgery

Chairman: R. W. Paul Mellish, M.B., B.S. Associate Professor Mellish. The Section of Pediatric Surgery aims to provide optimum surgical care for children in

the hospitals of the University of Vermont Medical Center. A consultative service for other departments, practicing physicians and the State Department of Health has been developed.

The teaching program complements the general surgical courses with demonstrations and lectures for the third-year students designed to enable them to recognize pediatric surgical problems. Tutorial sessions are held at both Units of the local hospital. These are directed toward case presentation by the students. Pediatric surgical rounds are made daily at each Unit. A Pediatric Surgical Conference is held once a week with multidiscipline discussion of pediatric surgical problems. In the fourth year, the students may take an elective in pediatric surgery.

An active research program is under way with particular stress on problems of the new-born infant. Third-year students are given the opportunity to develop their interests in summer research fellowships. Fourth-year elective students may take part in the research.

The service is integrated with the general surgical residency program and works closely with the Department of Pediatrics in the care of patients.

Section of Thoracic and Cardiac Surgery

Chairman: Laurence H. Coffin, M.D. Associate Professor Coffin; Associate Professor (Clinical) Miller.

The thoracic surgeon is a specialist in disease within the chest, who also performs surgery. The teaching program of Thoracic and Cardiac Surgery emphasizes the dynamic interplay of medical sciences and humanities in achieving optimal patient care. Sponsored formal meetings include a weekly combined medical-surgical conference, a monthly thoracic X-ray review, a monthly Thoracic Surgical Pathology Conference, combined conferences with the Cardiopulmonary Division, and cardiac surgery workshops. Formal lectures are kept to a minimum, with preferential teaching on rounds, "spot seminars," and student tutorials. The students participate actively in work-up and presentation of patients, in surgery (including open-heart) and in postoperative management.

Diagnostic activities include the more sophisticated assessment of coronary and other heart disease, as well as conventional procedures in thoracic and cardiovascular problems. Techniques in diagnosis and in disease evaluation are under constant research and development. The clinical program includes all phases of thoracic and cardiovascular disease in the two units of the Medical Center Hospital, as well as

The Department of Surgery

related consultative programs at the Vermont Sanatorium in Pittsford, and at the Barre Chest Clinic.

Operative programs, in addition to conventional thoracic procedures, include cardiopulmonary by-pass for open-heart surgery. Postoperative care involves the required attention to customary problems and, in addition, intensive postoperative management of serious problems, including Special Care Unit. The research program is concerned with all facets of cardiovascular pulmonary disease and shock. Both experimental and clinical investigative problems relate to open-heart surgery, to postpump syndromes, the modification of existing and development of new prosthetic valves, postoperative assessment of cardiac and of pulmonary function after surgery and shock. A broad program in coronary surgery integrated with other departments within the medical school, is under development. Summer student fellowships are available each year in all programs.

Section of Urology

Chairman: Guy W. Leadbetter, Jr., M.D. Professors (Clinical) Leadbetter and Powell; Associate Professor (Clinical) Fagan; Assistant Professor (Clinical) Morrisseau; Instructor (Clinical) Esposito.

The teaching program is directed at the third and fourth years. Didactic lectures usually levelled at the third-year group, are largely supplemented by tutorial sessions with smaller groups, briefly reviewing and clarifying puzzling aspects of material to be covered.

Patient material is used to assist in this effort. Third- and fourth-year teaching is carried out almost entirely in the hospital where the students are particularly active on the wards and in the outpatient departments. They are occupied with patient study, weekly urological rounds, intravenous pyelography conferences, observation in cystoscopy and operating rooms. Students in their senior year may take an elective month in urology, and in some instances, carry on research projects throughout the year.

A three-year approved urological residency program has been operational for a number of years with clinical and research material gathered from both Units of the teaching hospital and the College of Medicine research unit. Research projects in recent years have been carried out in cinefluorography, hypertension, microsurgery of ureter and vas deferens, and so forth.

Interns are assigned to urology in both Units and participate in teaching and conferences.

The Charles A. Dana Medical Library

Medical Librarian George H. Hunter, M.A.; Assistant Librarian Mrs. Ellen Gillies, B.S. in L.S.; Regional Medical Librarian Mrs. Gail Weinsieder, B.L.S.

The Medical Library is located in the center of the Medical College complex, between the Medical Alumni and the Given Medical Buildings. Two floors and stacks house about 37,000 volumes, including about 1,000 rare books, as well as medical instruments and apparatus of our Vermont medical history. Exhibits in the literature and history of medicine are presented regularly.

The library receives regularly 1,405 journals and adds about 200 new titles annually.

All users have free access to the open stacks, which contain study carrels. Further space for readers is provided on the main floor reading room.

The Library is open from 8:30 a.m. to 1:00 a.m. Monday through Saturday, and 10:00 a.m. to 1:00 a.m. Sunday.

Photocopy service is available on the ground floor (machine room) where an experienced Xeroxologist will be on duty from 8:30 a.m. to 5:00 p.m., Monday through Friday. A TWX (teletype) machine provides speedy transmission of interlibrary loan requests. The facilities of larger medical libraries such as the Yale Medical Library and the Countway Library of Medicine (Harvard) are thus readily available to the students and faculty. The University of Vermont Medical Library is actively participating in current planning for library cooperation on a local, regional and national basis.

Regional Medical Program

Assistant Dean for Regional Medical Affairs John E. Mazuzan, M.D.; Director of Regional Medical Program John E. Wennberg, M.D.; Associate Director for Project Development Donald J. Danielson, B.S., M.H.A.; Data Processing, John Senning, B.S.; Engineering Support, Peter M. Watts, B.E.E.; Operational Projects: Richard Bouchard, M.D., Marjorie N. Porter, Ed.M., George Welsh, M.D.; Project Development, Caryl J. Stewart, M.S.W.; Business Manager, Darwin Merrill, M.S.; Research Associates: K. Provost, B.A., K. Iorio, M.D., C. Lloyd, B.A., Physicians Assistant, P. Moson.

In June, 1966 the University of Vermont College of Medicine was among the first five institutions in the country to be awarded a grant by the National Institutes of Health to plan a Regional Medical Program (P.L. 89-239).

After a two and a half year planning grant, the Northern New England Regional Medical Program became operational on May 1, 1969. The specific objective of the Regional Medical Program is to decrease mortality and disability due to disease; this concern for improving health is expressed in four different kinds of activities:

- 1) The development of specific projects that emphasize the establishment of a regional approach to the clinical management of disease. An example of this activity is the Coronary Care Project which has established a network of specialized units for the treatment of acute heart disease.
- 2) The development of integrated and regionalized approaches to the development and use of expensive medical resources. To this end the Regional Medical Program has provided technical sources to a study committee which has made a recommendation for the establishment of a shared computer system for the states of Vermont and New Hampshire.
- 3) The stimulation of planning activity at the areawide level through affiliation with locally organized planning groups. Financial support for part of the expenses of the basic staff of the Connecticut Valley Health Compact is an example of this activity.
- 4) Technical support for areawide planning groups and other appropriate agencies in the development of areawide studies for specific projects. The Community Report prepared for the Connecticut Valley Health Compact is an example of this.

The staff of the Regional Medical Program is working closely with the Department of Community Medicine, the Office of Continuing Medical Education and the State Health Department to meet the objectives of the Program.

Honors and Prizes

Certain students who have been top-ranking during the entire four years' course of study in the college may be graduated as Doctors of Medicine, cum laude, upon recommendation of the Advancement Committee and the Faculty.

Prizes for general high standing for four years shall be awarded only to students who have been enrolled for four years at this college.

Clinical prizes may be awarded to any student who has spent the third and fourth years at this college.

Alpha Omega Alpha, Honor Medical society: Students are elected to this national society by faculty and student members. Selection is based not only upon high academic records but also upon evidence of individual scholarship and promise for an outstanding medical career.

The Governor Woodbury Prizes: The income from a fund of one thousand dollars, augmented by funds from the Century Club of the UVM Medical Alumni Association, provides two prizes annually. The first is awarded at graduation to the student who has shown the greatest proficiency in clinical work. The other is awarded to the sophomore having the highest standing in the basic science core.

The Carbee Prize: A prize fund of three thousand dollars was established by the late Mrs. May D. Carbee of Haverhill, N. H., in memory of her husband, Moses Dyer Carbee, M.D., of the class of 1873. The annual income from the investment of this fund provides a prize to be awarded annually to the student who has shown the greatest proficiency in the field of Obstetrics. The Department of Obstetrics makes the award.

The Helaine Mesch Memorial Award: This award is presented annually by the class of 1961 to the most deserving senior, the recipient to be selected by his classmates.

The UVM Century Club Prizes for Scholarship: These prizes are awarded annually to the two students attaining the highest scholastic rank in their class during four years at the University of Vermont.

The Lamb Foundation Awards are presented to those students who best exemplify the highest ideals of physician-patient relationships.

The Mosby Scholarship Book Awards are given to the five students selected for excellence of performance and service to their class.

The UVM Century Club Prize for Undergraduate Research: This is an annual award presented for performance of a research project with outstanding competence.

Honors and Prizes

The William Eustis Brown Alumni Prize: This award is presented annually to a graduating student on the basis of broad cultural interests and loyalty to the College of Medicine. The award was established by an annual grant from the Century Club of the UVM Medical Alumni Association.

The Ernest Hiram Buttles Century Club Prize: This award is presented annually to the second-year student selected by the Department of Pathology for outstanding performance in that subject.

HONORS AND PRIZES, 1969

Carbee Prize, for greatest proficiency in the subject of Obstetrics, William J. Watson, B.S.

Woodbury Prizes in Medicine: for greatest proficiency in Clinical Work in senior year, Arthur B. Soule, III, B.A.; to the sophomore having the highest standing in the basic science, William J. MacDonald, Jr., A.B.

Helaine Mesch Memorial Award, Moussa Y. Menasha, B.S.

Cum Laude:

Stephanie Ann Barnes, B.A.
Daniel Buker Clarke, B.S.
Moussa Yousef Menasha, B.S.

Roger Keith Pitman, A.B.
Arthur Bradley Soule, III, B.A.

Alpha Omega Alpha, National Honor Medical Society:

Daniel B. Clarke, B.S.
Frederick S. Cramer, B.S.
Moussa Y. Menasha, B.S.
Roger K. Pitman, A.B.

Susan W. Pitman, B.A.
David W. Rowe, B.S.
Jonelle C. Rowe, M.A.
Arthur B. Soule, III, B.A.

The William Eustis Brown Alumni Prize, awarded to a senior on the basis of broad cultural interests and loyalty to the College of Medicine, Stephen W. Munson, B.A.

The UVM Century Club Prizes for Scholarship, awarded to the two students attaining the highest scholastic rank based on four years completed at the University of Vermont College of Medicine. 1st Prize, Arthur B. Soule, III, B.A.; 2nd Prize, Moussa Y. Menasha, B.S.

The Ernest Hiram Buttles Century Club Prize, awarded to the sophomore selected by the Department of Pathology for outstanding work in that subject, William J. MacDonald, Jr., A.B.

The Roche Award, given to a student whose compassion and appreciation of patients' needs promise distinguished service in the care of the sick. Jonelle C. Rowe, M.A.

The Pfizer Award, awarded annually to a student on the basis of scholastic record, financial need, or both, David J. Coppe, B.S.

The UVM Century Club Prize for Undergraduate Research, Norbert J. Gilmore, B.A.

The Lamb Foundation Awards, given to those students who best exemplify the highest ideals of physician-patient relationships.

Bernard M. Casey, A.B.

Raymond A. Maddocks, A.B.

Daniel B. Clarke, B.S.

John W. Thompson, Jr., M.S.

The Mosby Scholarship Book Awards, given for excellence of performance and service to the class.

John C. Abajian, B.A.

Roger K. Pitman, A.B.

Stephanie A. Barnes, B.A.

Susan W. Pitman, B.S.

Frederick S. Cramer, B.S.



Looking east from the top of Mt. Mansfield.

Lectureships

Clarence H. Beecher Memorial Lecture: In 1960 the Vermont Heart Association established this memorial lecture in honor of one of its founders and past president, Dr. Clarence H. Beecher.

Wayne Griffith Memorial Lecture: In 1960 the Vermont Division of the American Cancer Society established a memorial lecture for Wayne Griffith, M.D., formerly of Chester, Vt.

Organizations

STUDENT COUNCIL

Two elected representatives from each class, and the president of each class ex officio, form a student council which meets with the Dean and the Assistant Dean for Student Affairs regularly during the academic year.

ALPHA OMEGA ALPHA

A chapter of the national medical honor society was installed at this college on November 21, 1952.

BEAUMONT MEDICAL CLUB

The Beaumont Medical Club was formed for the enjoyment of the history of medicine. Informal meetings are held through the year, and there is an annual formal lecture. The Medical Alumni Association provides financial support.

THE OSLER CLINICAL SOCIETY

The Osler Clinical Society, which was organized in 1929, is composed of all undergraduate students in the College of Medicine.

MEDICAL STUDENTS WIVES CLUB

Wives of medical students meet frequently during the year for social activities and other projects.

UVM MEDICAL ALUMNI ASSOCIATION

The University of Vermont Medical Alumni Association, whose membership is made up of all graduates of the College of Medicine, is increasingly active in its support of the school and the student body.

Each fall the Alumni Association sponsors a Century Club banquet, at which time all members of the junior class are entertained and recent graduates of the medical school help prepare the prospective graduates for their years of postgraduate education.

The Alumni Association also sponsors many awards and prizes which are given to outstanding students.

At Commencement the Medical Alumni Association sponsors an annual alumni banquet on Alumni Day, at which time the senior class members and their guests attend with all alumni who are returning for Commencement.

In addition, the Alumni Association through its Century Club sponsors many student and faculty endeavors during the year. This includes such activities as the sponsorship of visiting professors, the support of students who are doing research, and of studies of educational methods in medicine.

For the year 1969-70 the following alumni serve as officers of The University of Vermont Medical Alumni Association:

President—Joseph N. Russo, '45, Hartford, Conn.

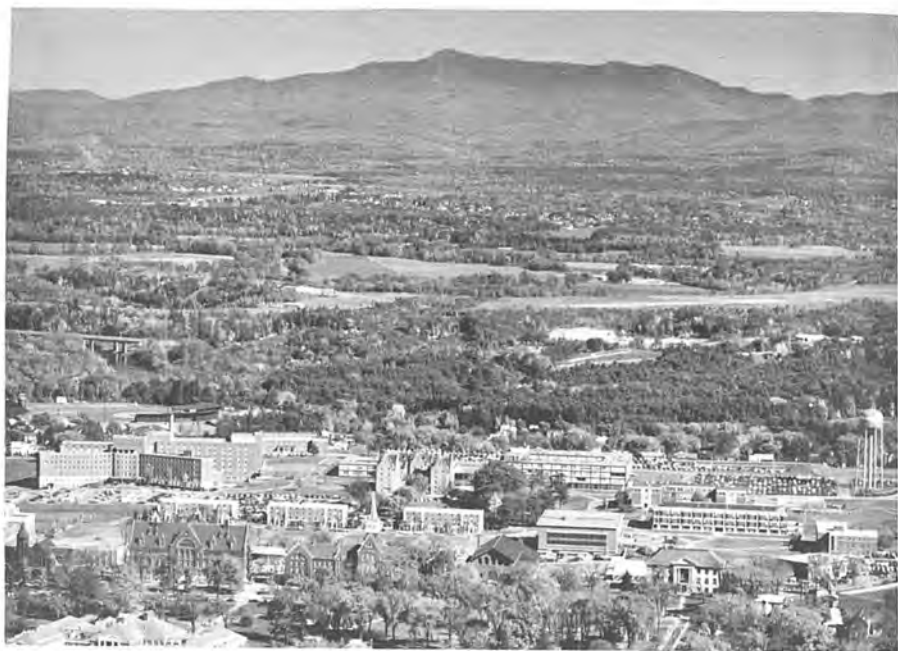
President-Elect—Thomas G. Cogswell, '38, Concord, N.H.

Vice President—John C. Cunningham, '35, Burlington

Secretary-Treasurer—Ralph D. Sussman, '38, Burlington

Executive Committee—Edward S. Irwin, '55, Burlington; John P. Tampas, '54, Burlington; A. Bradley Soule, Jr., '28, Burlington.

ADMINISTRATION AND FACULTY



Aerial view looking east from the campus to the Green Mountains.

The Board of Trustees

Lyman Smith Rowell, M.S., L.H.D., President	Ex-Officio
Deane Chandler Davis, L.L.B., Governor	Ex-Officio

March, 1964-March, 1970

Lawrence James Doolin, B.S.	Wynnewood, Pa.
Floyd Merle James, B.S.	Burlington, Vt.
George Hamilton Cook, Jr., B.S. (March, 1968-March, 1970)	Leominster, Mass.

March, 1965-March, 1971

William Thomas Burns, B.S.	Dorset, Vt.
Edward Richardson Eurich	Waitsfield, Vt.
Leo O'Brien, Jr., B.A.	South Burlington, Vt.
Walter Cabot Paine, A.B.	Hanover, N. H.

March, 1966-March, 1972

John Luther Beckley, Ph.B.	North Caldwell, N. J.
Leon Donald Latham, Jr., Ph.B., LL.B.	Burlington, Vt.
Kenneth Nash Scott, B.S.	Grosse Pointe, Mich.

March, 1967-March, 1973

Peter Giuliani	Montpelier, Vt.
Ellwyn Edward Miller, B.S.	Putney, Vt.
Robert Emmett O'Brien, B.S., M.D.	Winooski, Vt.
George Howard Sloan, M.A.	Rutland, Vt.

March, 1968-March, 1974

Bingham Johnson Humphrey, B.S., Ph.D.	Mt. Carmel, Conn.
George Edward Little, Jr., A.B.	Burlington, Vt.
Charles Theodore Schechtman, M.D.	New Britain, Conn.

March, 1969-March, 1975

C. Douglas Cairns, S.B.	Burlington, Vt.
Thomas Henry Candon, B.S.	Rutland, Vt.
Arthur Henry Jones, B.S.	Morgan, Vt.
Francis Robert Peisch, A.B., LL.B.	Burlington, Vt.

Academic Divisions and Colleges of the University of Vermont

Lyman Smith Rowell, M.S., L.H.D.

President of the University

THE COLLEGE OF ARTS AND SCIENCES

Alfred Brooks Rollins, Jr., Ph.D., Dean

A general four-year program is provided leading to the degree of Bachelor of Arts with the opportunity for concentration in one or more of the following studies: botany, chemistry, commerce and economics, English, French, geology, German, Greek, history, Latin, mathematics, music, philosophy, physics, political science, psychology, sociology, Spanish, speech, and zoology. Pre-professional programs for students who plan to continue their education in professional schools may be planned.

THE COLLEGE OF AGRICULTURE AND HOME ECONOMICS

Thomas Whitfield Dowe, Ph.D., Dean

Four-year curricula are offered leading to the degrees of Bachelor of Science in Agriculture, in Agricultural Engineering, and in Home Economics. Also offered is a two-year program in pre-veterinary science which prepares students for admission to other institutions for professional training.

THE COLLEGE OF TECHNOLOGY

Warren Orvel Essler, Ph.D., Dean

Included in this college are curricula in civil, electrical, mechanical and management engineering, and professional chemistry.

THE COLLEGE OF EDUCATION

Dean Corrigan, Ed.D., Dean

Four-year curricula are offered leading to the Bachelor of Science degree in the fields of elementary, secondary, business, and music education.

THE DIVISION OF HEALTH SCIENCES

Edward Clinton Andrews, Jr., M.D., Dean

The Division of Health Sciences includes:

THE COLLEGE OF MEDICINE

Edward Clinton Andrews, Jr., M.D., Dean

The College of Medicine offers a four-year graduate program leading to the

degree Doctor of Medicine and provides facilities for a limited number of candidates for other graduate degrees to take courses in its departments.

THE SCHOOL OF NURSING

Norma Lowyn Woodruff, Ph.D., Director

The School of Nursing offers a four-academic-year curriculum leading to the degree of Bachelor of Science in Nursing and a two-year program leading to the degree Associate of Science in Nursing.

THE SCHOOL OF ALLIED HEALTH SCIENCES

Robert William Coon, M.D., Director

The School of Allied Health Sciences offers an Associate Degree in Dental Hygiene, a Bachelor of Science in Medical Technology, and an Associate Degree for Medical Laboratory Technicians.

THE GRADUATE COLLEGE

Donald Boyce Johnstone, Ph.D., Dean

Opportunities for graduate study are offered in academic fields in which University resources have made sound graduate programs possible. Doctoral programs have been inaugurated in several areas and Master's programs are available in nearly all departments. The Graduate College administers all studies beyond the Bachelor's degree with the exception of the program in the College of Medicine leading to the degree Doctor of Medicine.

CONTINUING EDUCATION

THE SUMMER SESSION

Raymond Virgil Phillips, Ph.D., Dean

Jack Ernest Little, Ph.D., Assistant Dean

Courses are offered on both the graduate and undergraduate level in many subjects under the regular staff, as well as special classes given by visiting instructors.

THE EVENING DIVISION

John Robert Bushey, B.S., Director

Courses are offered on the University of Vermont campus and at other locations throughout the State.

Division of Health Sciences Administration

Edward Clinton Andrews, Jr., A.B., M.D.	Dean
Robert William Coon, B.S., M.D.	Associate Dean
Donald Brehaut MacPhail, A.B.	Director of Administration
Alan John Charron, B.A., M.A.	Organization and Management Specialist
Robert Birchall Lorenz, B.S., M.S., Ph.D.	Director, Office of Instructional Resources
George William Welsh, B.A., M.D.	Director, Office of Continuing Education, Health Sciences
Gerald Goold, B.A.	Administrative Associate, Continuing Education

College of Medicine Administration

Edward Clinton Andrews, Jr., A.B., M.D.	Dean
William Hossfeld Luginbuhl, B.S., M.D.	Associate Dean
David Babbott, B.A., M.D.	Assistant Dean
Stanley Livingston Burns, Jr., A.B., M.D.	Assistant Dean
John Edmund Mazuzan, B.S., M.D.	Assistant Dean
Chester Albert Newhall, A.B., M.D.	Secretary of the Faculty
Harold Barnard Pierce, B.S., M.S., Ph.D.	Adviser on Student Affairs
John Egmont Wennberg, B.A., M.P.H., M.D.	Director, Regional Medical Program
James Henry Bates, B.S., M.Ed.	Executive Assistant
Cornelia Josephine Baylies, A.B.	Administrative Assistant
Margaret Miller Hinman, B.S.	Administrative Assistant (Admissions)
Wendy Gayley Smith	Administrative Assistant

STANDING COMMITTEES 1969-70 (College of Medicine)

Executive Committee

Edward C. Andrews, Jr., Chairman. Norman R. Alpert; David Babbott; Stanley L. Burns, Jr.; Robert W. Coon; John C. Cunningham; John H. Davis; Franklin T. Hoaglund; Charles S. Houston; Hans R. Huessy; William H. Luginbuhl; John Van S. Maeck; John E. Mazuzan; R. James McKay; Donald B. Melville; Raymond L. Milhous; Charles M. Poser; Durwood J. Smith; A. Bradley Soule, Jr.; Warren R. Stinebring; W. Allan Tisdale; William J. Young; Ellsworth L. Amidon (ex officio); George H. Hunter (ex officio); Herluf V. Olsen (ex officio); Lester J. Wallman (ex officio); George S. Welsh (ex officio); Norma L. Woodruff (ex officio).

Admissions Committee

Stanley L. Burns, Jr., Chairman. Richard E. Bouchard; Joseph C. Foley; William E. Hodgkin; John C. Lantman; Alexander Nies; C. Alan Phillips; Ronald C. Picoff; J. Ward Stackpole; John P. Tampas; David M. Tormey.

Advancement Committee

David Babbott, Chairman. Department and Section chairmen.

Animal Facilities Committee

Henry M. Doremus, Chairman. Roger S. Foster; Ernest Reit.

Awards and Fellowships Committee

Ellsworth L. Amidon, Chairman. Albert G. Mackay; John Van S. Maeck; R. James McKay; Durwood J. Smith; A. Bradley Soule, Jr.

Building Committee

Donald B. Melville, Chairman. Robert W. Coon; John Van S. Maeck; Durwood J. Smith.

Clinical Research Center Advisory Committee

Edward S. Horton, Chairman. Ellsworth L. Amidon; Edward C. Andrews, Jr.; Robert W. Coon; John H. Davis; Ben R. Forsyth; William G. George; Hans R. Huesy; William H. Luginbuhl; Herluf V. Olsen, Jr.; John Van S. Maeck; Ethan A. H. Sims; W. Allan Tisdale.

Curriculum Development Committee

David Babbott, Chairman. Frank L. Babbott, Jr.; Herbert A. Durfee; Thomas C. Gibson; Roy Korson; Jerold F. Lucey; Albert G. Mackay; H. Lawrence McCrorey; R. W. Paul Mellish; Donald B. Melville; B. Albert Ring; Durwood J. Smith; W. Allan Tisdale; M. C. Twitchell; William A. Woodruff; William J. Young; William H. Luginbuhl (ex officio).

Graduate Medical Education Committee

David Babbott, Chairman. Department and section chairmen having residency programs, and Ellsworth L. Amidon; James H. Bates; John F. Berry; George N. Clerkin.

History of College of Medicine Committee

Lester J. Wallman, Chairman. Paul K. French; George H. Hunter; Arthur S. Kumin; Chester A. Newhall; Harold B. Pierce; A. Bradley Soule, Jr.

Intern Advisory Committee

R. James McKay, Chairman. Richard A. Anderson; Clarence E. Bunker; Gareth M. Green; Robert A. Holden; Edward S. Horton; Edward A. Kupic; Arthur M. Levy; John D. Lewis; Jerold F. Lucey; E. Douglas McSweeney, Jr.; R. W. Paul Mellish; Michael J. Moynihan; John J. Murray; David S. Newcombe; Alexander Nies; J. Ward Stackpole; Paul D. Stanilonis; William H. Stouch; Donald R. Swartz.

Joint Executive Agency

The University of Vermont: Lyman S. Rowell, President; Edward C. Andrews, Jr., Dean, College of Medicine. The Medical Center Hospital of Vermont: William S. Cowles, Jr., President; Thomas B. Wright, Jr., Vice President; Herluf V. Olsen, Jr., Executive Director.

Library Committee

Warren L. Beeken, Chairman. David Babbott, Robert Lorenz, William L. Meyer; Janet R. Sawyer; George W. Welsh; George H. Hunter (ex officio); Paul B. Kababian (ex officio).

Medical Center Medical Board Members

William S. Cowles, Jr.; Thomas B. Wright, Jr.; George E. Little, Jr.; Charles T. Schechtman; Leon D. Latham, Jr.

Index of Faculty

EMERITI

Thomas Stephen Brown, M.D., University of Vermont, 1904. Professor of Anatomy.
Rupert Addison Chittick, B.S., University of Nebraska, 1923; M.A., 1924; M.D., Harvard, 1929. Professor of Psychiatry.

*Paul Dennison Clark, M.D., University of Vermont, 1926. Associate Professor of Pediatrics.

Oliver Newell Eastman, M.D., University of Vermont, 1908. Professor of Obstetrics and Gynecology.

J. Louis Philippe Forest, A.B., Laval, 1920; M.D., University of Montreal, 1925. Assistant Professor of Clinical Psychiatry.

Paul Kendrick French, Ph.B., University of Vermont, 1920 M.D., 1923. Professor of Clinical Medicine. p. 73

**Peter Paul Lawlor, M.D., University of Vermont, 1920. Assistant Professor of Otolaryngology.

Henry Lee Mills, D.V.M., Grand Rapids Veterinary College, 1911. Instructor in Public Health.

Chester Albert Newhall (Thayer Professor of Anatomy), A.B., North Central College, 1924; M.D., University of Vermont, 1928. Professor of Anatomy. p. 25, 72, 73

Harold Barnard Pierce, B.S., Massachusetts State College, 1917; M.S., Pennsylvania State College, 1921. Ph.D., Univ. of Rochester, 1928. Professor of Biochemistry.

Wihelm Raab, M.D., University of Vienna, 1920; M.D., German University of Prague, 1926. Professor Experimental Medicine.

Arthur Bradley Soule, Jr., A.B., University of Vermont, 1925; M.D., 1928. p. 53, 67, 72, 73

Richard S. Woodruff, B.A., Yale, 1922; M.D.C.M., McGill, 1928. Assistant Professor of Pathology.

William Greenhill Young, M.D., University of Toronto, 1930. Associate Professor of Psychiatry. p. 51

PROFESSORS

John Abajian, Jr., M.D., New York Medical College, 1937. p. 57

Norman Roland Alpert, A.B., Wesleyan, 1943; Ph.D., Columbia, 1951. p. 48, 49, 72
Ellsworth Lyman Amidon, B.S., Tufts College, 1927; M.D., University of Vermont, 1932; M.S. (Med.), University of Pennsylvania, 1938. p. 34, 72, 73

Edward Clinton Andrews, Jr., A.B., Middlebury, 1946; M.D., Johns Hopkins, 1951. p. 42, 70, 72, 73

Robert William Coon, B.S., North Dakota State College, 1942; M.D., University of Rochester, 1944. p. 42, 71, 72, 73

* Deceased June 5, 1969.

** Deceased March 14, 1969.

- John Edward Craighead, B.S., Utah, 1952; M.D., 1956. p. 42
- John Charles Cunningham (Shipman Professor of Ophthalmology), A.B., University of Vermont, 1931; M.D., 1935. p. 40, 67, 72
- John Herschel Davis, M.D., Western Reserve, 1948. p. 56, 72, 73
- Raymond Madiford Peardon Donaghy, B.S., University of Vermont, 1933; M.D., 1936. p. 57
- Fred Williams Dunihue, A.B., Wabash College, 1929; M.S., New York University, 1931; Ph.D., 1934. p. 25
- Joseph Herbert Gans, V.M.D., University of Pennsylvania, 1946; Ph.D., Jefferson Medical College, 1958. p. 46
- Arthur Gladstone, B.S., University of Vermont, 1928; M.D., 1931. p. 56
- Franklin Theodore Hoaglund, B.A., University of California, 1952; M.D., Johns Hopkins, 1956. p. 41, 72
- Charles Sneed Houston, A.B., Harvard, 1935; M.D., Columbia, 1939. p. 30, 72
- Hans Rosenstock Huessy, B.A., Dartmouth, 1942; M.D., Yale, 1945; M.S., University of Colorado, 1951. p. 51, 72, 73
- Julian Joseph Jaffe, B.A., University of Connecticut, 1949; M.A., Harvard, 1951; Ph.D., 1955. p. 46
- Donald Boyce Johnstone, B.S., Rhode Island State College, 1942; M.S., Rutgers, 1943; Ph.D., 1948. p. 32, 71
- Roy Korson, A.B., University of Pennsylvania, 1943; M.D., Jefferson, 1947. p. 42, 73
- Bert Karl Kusserow, B.S., Union, 1948; M.D., Yale, 1953. p. 42, 48
- Guy Whitman Leadbetter, Jr., A.B., Bowdoin College, 1949; M.D., Johns Hopkins, 1953. p. 60
- Eugene Lepeschkin (National Institutes of Health Research Career Award), M.D., University of Vienna, 1939. p. 34
- Jerold Francis Lucey, A.B., Dartmouth, 1948; M.D., New York University, 1952. p. 44, 73
- William Hossfeld Luginbuhl, B.S., Iowa State College, 1949; M.D., Northwestern, 1953. p. 42, 72, 73
- *John Hamilton Mabry, B.A., State University of Iowa, 1948; M.A., 1949; Ph.D., 1951. p. 30
- Albert George Mackay, B.S., University of Vermont, 1929; M.D., 1932. p. 56, 73
- **William Hooper Macmillan, A.B., McGill, 1948; Ph.D., Yale, 1954. p. 46
- John Van Sicklen Maeck, B.S., University of Vermont, 1936; M.D., 1939. p. 38, 72, 73
- Herbert Lloyd Martin, B.S., Boston University, 1947; M.D., 1950. p. 37
- Robert Arthur Maxwell (Visiting), A.B., Syracuse, 1951; M.A., Ph.D., Princeton, 1954. p. 46

* Sabbatical leave, 1969-70.

** Leave of absence, 1969-70.

Robert James McKay, Jr., A.B., Princeton, 1939; M.D., Harvard, 1943. p. 25, 44, 72, 73

Donald Burton Melville, B.S., University of Illinois, 1936; M.S., 1937; Ph.D., 1939. p. 28, 72, 73

Donald Joseph Merchant, A.B., Berea College, 1942; M.S., University of Michigan, 1947; Ph.D., 1950. p. 32

**Rufus Clegg Morrow, Jr., B.S., Davidson College, 1934; M.S., Duke, 1939.

Herluf V. Olsen, Jr., A.B., Dartmouth, 1950; M.H.A., University of Minnesota, 1952. p. 72, 73

Harold Gordon Page, B.S., University of Vermont, 1940; M.D., 1945. p. 56

Charles Marcel Poser, B.S., College of the City of New York, 1947; M.D., Columbia, 1951. p. 37, 72

Platt Rugar Powell, B.S., University of Vermont 1936; M.D., 1939. p. 60

Lester Edmund Richwagen, B.S., Dartmouth, 1923.

Wilfred Roth (Electrical Engineering), B.S. in E.E., Columbia, 1943; Ph.D. in Physics, Massachusetts Institute of Technology, 1948. p. 53

George Adam Schumacher (National Institutes of Health Career Professorship Award), B.S., Pennsylvania State University, 1932; M.S., Cornell, 1936. p. 37

Ethan Allen Hitchcock Sims, B.S., Harvard, 1938; M.D., College of Physicians and Surgeons, Columbia University, 1942. p. 28, 34, 73

William Joseph Slavin, Jr., B.S., University of Vermont, 1933; M.S., 1935. p. 38

Durwood James Smith, A.B., Syracuse, 1938; M.D., 1941. p. 46, 72, 73

Samuel Solomon, B.Sc., McGill, 1947; M.Sc., 1951; Ph.D., 1953. p. 38

Warren R. Stinebring, B.A., University of Buffalo, 1948; M.S., University of Pennsylvania, 1949; Ph.D., 1951. p. 32, 72

Ralph Daniel Sussman, B.S., University of Vermont, 1935; M.D., 1938. p. 44, 67

Burton Samuel Tabakin, A.B., University of Pennsylvania, 1943; M.D., 1947. p. 34, 48, 50

William Allan Tisdale, B.S., University of Florida, 1947; M.D., Harvard, 1951. p. 34, 72, 73

Julian Arnold Waller, A.B., Columbia, 1953; M.D., Boston University, 1957; M.P.H., Harvard, 1960. p. 30

Lester Julian Wallman, A.B., Yale, 1934; M.D., 1938. p. 57, 72, 73

Lawrence Leonard Weed, B.A., Hamilton College, 1943; M.D., Columbia, 1947. p. 30, 34

William Johnson Young, Jr., B.A., Amherst, 1950; M.A., 1952; Ph.D., Johns Hopkins, 1956. p. 25, 72, 73

ASSOCIATE PROFESSORS

Jerome Sanford Abrams, B.S., Western Reserve., 1950; M.D., Ohio State, 1957. p. 56

** Leave of absence, 1969-70.

- Robert Bascom Aiken, Ph.B., University of Vermont, 1931; M.S., 1933; M.D., 1937; M.P.H., Harvard, 1948. p. 30
- Sinclair Tousey Allen, Jr., B.A., Williams College, 1936; M.D., Harvard, 1940. p. 34
- Frank Lusk Babbott, Jr., B.A., Amherst, 1947; M.S., New York State University, 1951; M.P.H., Harvard, 1953; M.S. in Hygiene, 1954. p. 30, 73
- Warren Lazell Beeken, B.S., Haverford, 1949; M.D., Temple, 1953. p. 34, 73
- John Frye Bell, A.B., Yale, 1931; M.D., Harvard, 1935; M.P.H., 1952. p. 41
- John Francis Berry, A.B., Holy Cross, 1939; M.S., Columbia, 1948. p. 73
- John Hardesty Bland, A.B., Earlham College, 1939; M.D., Jefferson, 1943. p. 34
- John Douglas Boardman, A.B., Holy Cross, 1945; M.D., University of Vermont, 1948. p. 38
- Richard Emile Bouchard, M.D., University of Vermont, 1949; M.S., 1951. p. 34, 62, 72
- George Wilson Brooks, B.S., University of New Hampshire, 1941; M.D., University of Vermont, 1944. p. 51
- R. Clay Burchell, B.S., Massachusetts Institute of Technology, 1950; M.D., Buffalo, 1954. p. 38
- Stanley Livingston Burns, Jr., A.B., University of Vermont, 1951; M.D., 1955. p. 34, 72
- Alfred Hayes Chambers, A.B., Swarthmore, 1936; Ph.D., University of Pennsylvania, 1942. p. 48, 49
- Jackson Joshua Walter Clemmons, B.S., University of Wisconsin, 1947; M.S., 1949; Ph.D., 1955; M.D., Western Reserve, 1959. p. 42
- Laurence Haines Coffin, B.S., Massachusetts Institute of Technology, 1955; M.D., Case Western Reserve, 1959. p. 59
- Julius George Cohen, B.S., University of Vermont, 1942; M.D., 1945. p. 51
- Rex Dee Couch, A.B., Indiana University, 1952; M.D., 1956. p. 42
- Gino Aldo Dente, M.D., University of Vermont, 1941. p. 57
- Herbert Ashley Durfee, Jr. B.S., Yale, 1948; M.D., University of Vermont, 1948. p. 38, 73
- Oliver Rolfe Eastman, B.S., University of Vermont, 1935; M.D., 1938. p. 38
- Winston Milo Eddy, B.S., University of Vermont, 1943; M.D., 1945. p. 34
- William Thomas Fagan, Jr., B.S., University of Vermont, 1945; M.D., 1948. p. 60
- John Edward Farnham, B.A., Norwich, 1951; D.M.D., Tufts, 1959. p. 56
- Martin Edward Flanagan, B.S., St. Michael's, 1952; M.D., University of Vermont, 1956. p. 57
- Arthur Howard Flower, Jr., A.B., Heidelberg, 1938; M.D., Duke, 1942. p. 36
- Joseph Clayton Foley, B.S., Middlebury, 1939; M.A., New York State College, 1940; M.D., University of Vermont, 1949. p. 53, 72
- Ben Ralph Forsyth, M.D., New York University, 1957. p. 32, 34, 73

Thomas Chometon Gibson, B.A., Cambridge University, 1942; M.A., 1945; M.B., B.Ch., 1946; M.R.C.P. (London), 1955. p. 34, 73

*Erland Cheney Gjessing, B.S., Copenhagen, 1936; M.S., Michigan State, 1938; Ph.D., Cornell, 1942. p. 28

Arnold Golodetz, B.A., Harvard, 1948; M.D., University of Rochester, 1953; M.Sc., Harvard, 1969. p. 30, 34

Allan Poe Gray, A.B., Cornell, 1943; A.M., 1947; Ph.D., Columbia, 1950. p. 46

Mary Jane Gray, B.A., Swarthmore, 1945; M.D., Washington University (St. Louis), 1949; D.Sc. (Med), Columbia, 1954. p. 38

Gareth Montraville Green, A.B., Harvard, 1953; M.D., 1957. p. 34, 73

John Sherwood Hanson (National Institutes of Health Special Fellow), B.A., Yale, 1951; M.D., New York University, 1954. p. 34, 48, 50

Robert Wells Hyde, B.S., University of Vermont, 1932; M.D., 1935. p. 51

Clinton Dales Janney (Radiologic Physics), B.S., University of Illinois, 1941; Ph.D., University of California, 1945. p. 53

Philip Conboy Kelleher, B.S., Georgetown, 1950; M.D., 1954. p. 34, 48

Robert Evan Kendell, B.A., University of Cambridge (England), 1956; M.A., 1956; M.A., B.Ch., King's College (England), 1959; M.D., 1967. p. 51

Raymond Frank Kuhlmann, B.A., University of Wisconsin, 1936; M.D., Washington University, 1939. p. 41

Arthur Saul Kunin, A.B., Columbia, 1948; M.D., University of Vermont, 1952. p. 28, 34, 73

Edward Anthony Kupic, B.A., University of Vermont, 1956; M.D., 1960. p. 53, 73

Merton Philip Lamden, B.S., University of Massachusetts, 1941; Ph.D., Massachusetts Institute of Technology, 1947. p. 28

Hans Peter Laqueur, B.D., University of Amsterdam, 1931; M.D., 1935. p. 51

Arthur Maurice Levy, B.A., Harvard, 1952; M.D., Cornell, 1956. p. 34, 48, 50, 73

Huntington Mavor, A.B., Harvard, 1948; M.D., University of Rochester, 1955. p. 37

John Edmund Mazuzan, Jr., B.S., Boston College, 1951; M.D., University of Vermont, 1954. p. 57, 62, 72

John Joseph McCormack, Jr., B.S., Boston College, 1959; Ph.D., Yale, 1964. p. 46

Henry Lawrence McCrorey, B.S., University of Michigan, 1949; M.S., 1950; M.S., University of Illinois, 1958; Ph.D., 1963. p. 48, 49, 73

R. W. Paul Mellish, M.B., B.S., St. Mary's Hospital Medical School, London University, 1945. p. 58, 73

Donald Barker Miller, A.B., Johns Hopkins, 1938; M.D., 1942. p. 59

William Edward Mitchell, B.A., University of Wichita, 1950; M.A., Columbia, 1954; M.A., 1957; Ph.D., 1969. p. 51

David S. Newcombe, B.A., Amherst, 1952; M.D., McGill, 1956. p. 25, 34, 73

* Leave of absence, 1969-70.

- Mitsuo Numoto, M.D., Okayama University, 1948; Ph.D., 1953. p. 57
- Robert Emmett O'Brien, B.S., St. Michael's, 1942; M.D., University of Vermont, 1945. p. 34
- Oscar Sylvander Peterson, Jr., M.D., University of Vermont, 1936. p. 53
- Charles Alan Phillips, B.A., Yale 1954; M.D., 1959. p. 32, 34, 72
- Ernest (Marvin I.) Reit, B.S., Cornell, 1953; D.V.M., 1957; Ph.D., Yale, 1964. p. 46, 72
- John Downing Rice, Jr., B.Ch.E., New York University, 1943; M.D., Yale, 1953. p. 42.
- Benjamin Albert Ring (Neuroradiology and Radiologic Anatomy), B.S., Bates, 1942; M.D., Tufts, 1946. p. 25, 53, 73
- Charles Brush Rust, M.D., University of Vermont, 1939. p. 41
- *Arnold Harold Schein, B.S., College of the City of New York, 1936; Ph.D., University of Iowa, 1943. p. 28
- Andrew George Smith, B.S., Pennsylvania State, 1940; M.S., University of Pennsylvania, 1947; Ph.D., 1950. p. 32
- Ernest Stark, B.S., Columbia, 1933; M.D., Long Island, 1939. p. 42
- John Peter Tampas (Pediatric and Cardiac Radiology), B.S., University of Vermont, 1951; M.D., 1954. p. 53, 67, 72
- Christopher Marlow Terrien, M.D., University of Vermont, 1936. p. 34
- Helene Wallace Toolan (Experimental Pathology), B.S., University of Chicago, 1929; Ph.D., Cornell, 1946. p. 42
- David Michael Tormey, B.S., Holy Cross, 1944; M.D., New York Medical College, 1948. p. 30, 72
- Thomas Dermott Trainer, B.A., University of Maine, 1950; M.D., Tufts, 1954. p. 42
- Keith Frank Truax, B.S., University of Vermont, 1928; M.D., 1931. p. 56
- Frederick William Van Buskirk, A.B., University of Pennsylvania, 1930; M.D., 1933. p. 53
- George Dayton Webb, A.B., Oberlin, 1956; M.A.T., Yale, 1957; Ph.D., University of Colorado, 1962. p. 48, 49, 62
- Joseph Wells, B.S., Rhode Island, 1956; Ph.D., Duke, 1959. p. 25
- George William Welsh, B.A., Yale, 1942; M.D., Rochester, 1950. p. 34, 72, 73
- William Aloysius Woodruff, B.A., King's College (London), 1938; M.B., B.S., St. Bartholomew's, 1952; Diploma Psychiatry, University of Toronto, 1958. p. 51, 73

ASSISTANT PROFESSORS

- Paul Comstock Agnew, M.D., C.M., McGill, 1951. p. 51
- Peter Dunham Aiden, M.D., Harvard, 1958. p. 34
- Richard Walker Amidon, B.S., University of Vermont, 1941; M.D., 1943. p. 34

* Leave of absence, 1969-70.

- Richard Arnold Anderson, B.A., Wesleyan University, 1956; M.D., Columbia, 1960, p. 34, 73
- Gabor Janos Antony, M.D., Medical University of Budapest, 1955. p. 34, 44
- David Babbott, B.A., Amherst, 1951; M.D., University of Pennsylvania, 1955, p. 34, 72, 73
- Bernard Benjamin Barney (Plastic), B.S., University of Vermont, 1941; M.D., 1943, p. 56
- Richard Lloyd Bingham, B.A., University of Colorado, 1951; M.A., 1953; B.D., Union Theological Seminary, 1955; M.S.W., Denver University, 1962. p. 51
- David Kenneth Boraker, B.A., University of California at Santa Barbara, 1962; Ph.D., University of California at Los Angeles, 1967. p. 32
- *Otto A. Brusic, M.D., University of Munich, 1960. p. 30
- Clarence Edward Bunker, B.S., Maine, 1951; M.D., University of Vermont, 1962, p. 56, 73
- Roy Vedder Buttes, B.S., University of Vermont, 1937; M.D., 1940. p. 42
- Robert Nolan Cain, B.S., University of Vermont, 1943; M.D., 1945. p. 56
- Edgar Jacob Caldwell, B.S., University of New Hampshire, 1954; M.D., University of Vermont, 1958. p. 34, 48
- Martin John Cannon, B.S., University of Vermont, 1943; M.D., 1945. p. 38
- **Benjamin Franklin Clark, B.S., University of Vermont, 1930; M.D., 1933.
- John Patton Clements, B.A., University of Vermont, 1956; M.D., 1960. p. 53
- Philip Hovey Davis, B.S., University of Vermont, 1950; M.D., 1953. p. 41
- Robert Stuart Douglas Dean, M.B., B.Ch., University of Witwatersrand, 1954. p. 57
- William Nelson Deane (Sociology), A.B., Gordon College, 1941; B.D., Andover-Newton Theological School, 1944; M.A., University of New Hampshire, 1948; Ph.D., Washington University, 1954. p. 51
- Henry Meade Doremus, A.B., Dartmouth, 1937; M.S., Cornell, 1938; D.V.M., 1946, p. 46, 72
- David Richard Duffell, B.S., Beloit, 1953; M.D., University of Chicago, 1957. p. 42
- Michael John Dunn, B.S., Marquette University, 1958; M.D., 1962. p. 34
- Robert Healy Elwell, B.A., Columbia, 1954; M.A., 1955; M.D., University of Vermont, 1959, p. 37
- Warren Walter Epinette, A.B., Stanford, 1956; M.D., 1959. p. 36
- Florence Eileen Farber, A.B., Mt. Holyoke, 1961; Ph.D., Columbia, 1966. p. 48
- John Richard Fitzgerald, B.S., St. Michael's, 1951; M.D., University of Vermont, 1955. p. 34
- Curtis McCloy Flory, B.S., University of Chicago, 1935; M.D., 1938; Ph.D., 1940. p. 42

* Leave of absence, 1969-70.

** Deceased May 2, 1969.

- Dorothy Ellen Ford, B.S., Washington State University, 1950; M.D., Washington University, 1954. p. 54
- Steven Leslie Freedman, B.S., University of New Hampshire, 1957; Ph.D., Rutgers, 1962. p. 25
- John Willard Frymoyer, B.A., Amherst, 1959; M.S., University of Rochester, 1964; M.D., 1964. p. 41
- James Gerald Gallagher, B.S., Loyola, 1963; M.S., University of Illinois, 1967; Ph.D., 1969. p. 32
- Stokes Gentry, B.A., Swarthmore, 1951; M.D., Temple, 1955. p. 44
- Charles Morton Gluck, B.A., Hamilton, 1953; M.D., Boston University, 1957. p. 34
- Richard Herron Goldsborough, B.S., University of Pittsburgh, 1950; M.D., 1951. p. 58
- Howard Theodore Guare, M.D., University of Vermont, 1934. p. 53
- Dieter Walter Gump, B.A., Swarthmore, 1955; M.D., Johns Hopkins, 1960. p. 32, 34
- Carleton Raymond Haines (Oncology), B.S., University of Vermont, 1941; M.D., 1943. p. 56
- Lawrence Stanley Harris, A.B., Alfred University, 1958; M.D., Western Reserve, 1962. p. 42
- John Wilbur Heisse, Jr., A.B., Johns Hopkins, 1949; M.D., University of Maryland, 1953. p. 58
- David Byrne Hill, M.D., Stevens Institute of Technology, 1960; M.S., 1961; Ph.D., 1963. p. 30, 48
- William Elwin Hodgkin, B.S., Bates, 1955; University of Vermont, 1959. p. 25, 44, 72
- Robert Adams Holden, B.S., Massachusetts Institute of Technology, 1956; M.D., Harvard, 1960. p. 34, 73
- Edward Schurr Horton, A.B., Dartmouth, 1954; M.D., Harvard, 1957. p. 34, 73
- Phillip Lloyd Howard, B.A., University of Virginia, 1960; M.D., 1964. p. 42
- Robert Jacob Hunziker, A.B., University of Vermont, 1948; M.D., 1952. p. 53
- Robert John Iorio, A.B., Brown University, 1963; Ph.D., State University of New York (Upstate), 1968. p. 25, 62
- Edward Suter Irwin, B.S., University of Vermont, 1940; M.S., 1942; O.D., Pennsylvania State College of Optometry, 1950; M.D., University of Vermont, 1955. p. 40, 67
- Elbridge Eugene Johnston, M.D., University of Vermont, 1936. p. 34
- Robert Emil Kanich, B.A., University of Virginia, 1958; M.D., Medical College of Virginia, 1962. p. 42
- Irwin Seymour Kaye, A.B., Columbia, 1956; M.D., New York Downstate Medical Center, 1960. p. 42
- Jay Edgar Keller, M.D., University of Vermont, 1940. p. 56
- Edward Len Krawitt, A.B., Cornell, 1955; M.D., 1959. p. 34

- John Clifford Lantman, B.S., University of Vermont, 1948; M.D., 1951. p. 30, 34, 72
- Harold Leitenberg, A.B., City College of New York, 1960; Ph.D., Indiana, 1965, p. 51
- Jonathan Porter Aaron Leopold, M.D., University of Buffalo, 1951. p. 51
- John Downes Lewis, B.A., Williams, 1957; M.D., University of Pennsylvania, 1961, p. 38, 73
- Peter Castle Linton, A.B., Wesleyan, 1952; M.D., Albany, 1956. p. 56
- Richard Lewis Lipson, B.A., Lafayette College, 1952; M.D., Jefferson, 1956; M.S., University of Minnesota, 1960. p. 34
- James Frederick Madison, A.B., Franklin and Marshall, 1952; M.D., Temple, 1956. p. 36
- Christopher Patrick McAree, M.B., B.Ch., B.A.O., Queens (Ireland), 1956; Diploma Psychological Medicine, Royal College of Physicians and Surgeons (London), 1961; Diploma Psychiatry, McGill, 1962. p. 51
- James Bishop McGill, B.S., University of Vermont, 1944; M.D., 1946. p. 56
- Gerald Francis McGinniss, A.B., St. Anselm's 1946; M.D., University of Vermont, 1950. p. 51
- Marion Claire McKee, B.A., Hunter, 1949; M.D., Temple, 1953. p. 37, 44
- Edward Douglas McSweeney, Jr., A.B., University of Vermont, 1951; M.D., University of Ottawa, 1958. p. 56, 73
- Harold Edward Medivetsky, B.S., University of Vermont, 1929; M.D., 1932. p. 34
- Connelius Irving Meeker, B.A., Middlebury, 1950; M.D., Cornell, 1954. p. 38
- William Laros Meyer, B.S., Yale, 1956; Ph.D., University of Washington, 1962, p. 28, 73
- Raymond L. Milhous, M.D., University of Pennsylvania, 1961. p. 54, 72
- John Hollister Milne, A.B., Harvard, 1952; M.D., 1956. p. 34
- Thomas John Moehring, B.S., Fairleigh Dickinson, 1961; M.S., Rutgers, 1963; Ph.D., 1965. p. 32
- Maureen Katherine Molloy, B.A., Barnard, 1953; M.D., State University of New York, 1957; M.S.H., Harvard, 1964. p. 41
- Maurice Edward Mongeon, B.S., St. Michael's, 1954; M.D., University of Vermont, 1959. p. 34
- *Dorothy Jackson Morrow, B.S., Boston University, 1936; M.D., Tufts, 1940.
- Michael Jerome Moynihan, A.B., Holy Cross, 1956; M.D., Yale 1960. p. 34, 73
- Alexander Nies, B.A., Alfred University, 1952; M.D., McGill, 1958. p. 51, 72, 73
- Charles Pryor Novotny, B.S., Wisconsin State College, 1959; Ph.D., University of Pittsburgh, 1965. p. 32
- Donald Clark Oliveau, B.S., Antioch, 1958; M.D., University of Rochester, 1962. p. 51

* On leave.

- Rodney Lawrence Parsons, A.B., Middlebury, 1962; Ph.D., Stanford, 1965. p. 48, 50
- Edwin Mattson Paxson, A.B., Swarthmore, 1950; M.D., Jefferson, 1954. p. 44
- Ronald Chester Picoff, A.B., Columbia, 1956; M.D., 1960. p. 42, 72
- David Bogart Pilcher, B.A., Amherst, 1956; M.D., University of Rochester, 1961. p. 56
- Charles Lewis Ravaris, A.B., Boston University, 1949; Ph.D., McGill, 1954; M.D., University of British Columbia, 1958. p. 51
- Donald Stetson Robinson, B.Ch.E., Rensselaer Polytechnic Institute, 1949; B.Mgmt. E., 1950; M.D., University of Pennsylvania, 1959; M.S., University of Vermont, 1966. p. 34, 46
- Joseph Nicholas Russo, M.D., University of Vermont, 1945. p. 38, 67
- Herbert Savel, M.D., New York University, 1958. p. 34
- Wadi Sawabini (Oral Hygiene and Dental Medicine), D.D.S., American University of Beirut, 1940. p. 34
- Warren Ira Schaeffer, B.S., Rutgers, 1960; M.S., 1962; Ph.D., 1964. p. 32
- Roberta B. Schwalb, B.S., University of California, 1954; M.A., Teachers College, Columbia, 1956. p. 38
- William Ireland Shea, A.B., Holy Cross, 1936; M.D., University of Vermont, 1940. p. 56
- Tamotsu Shinozaki, M.D., Okayama University, 1958. p. 57
- James Edwin Simpson, B.S., University of Vermont, 1941; M.D., 1943. p. 41
- Warren Frederick Sims, Jr., B.S., University of Minnesota, 1956; M.D., 1960. p. 38
- Dennis Bernard Smith, B.A., Wesleyan, 1961; M.D., Albany Medical College, 1965. p. 37
- James Warren Smith, B.A., University of Iowa, 1956; M.D., 1959. p. 42
- James Ward Stackpole, B.A., Bowdoin, 1950; M.D., University of Vermont, 1956. p. 44, 72, 73
- David Luther Sylwester, A.B., University of Oregon, 1958; A.M., Indiana University, 1960; Ph.D., Stanford, 1966. p. 30
- David Latham Taber, M.D., Long Island, 1946. p. 38
- Richard Laurence Tannen, M.D., University of Tennessee, 1960. p. 34
- Howard Canning Taylor, III, B.A., Yale, 1951; M.D., Columbia, 1955. p. 42
- Wilfrid Louis Thabault, B.S., St. Michael's, 1943; M.D., University of Vermont, 1947. p. 38
- John Walter Thanassi, B.A., Lafayette, 1959; Ph.D., Yale, 1963. p. 28
- Gordon Clark Gregory Thomas, B.A., M.D., University of Virginia, 1944; M.S., 1949. p. 51
- Ruth Fimbel Thomson, B.S., Douglass College, 1938; M.S., Columbia, 1953. p. 51
- James Michael Toolan, A.B., St. Peter's College, 1943; M.D., Cornell, 1947. p. 51
- Charles Frederick Tschopp, A.B., Friends, 1955; M.D., Kansas, 1959. p. 58

- John Cushman Twitchell, B.S., University of Vermont, 1949; M.D., 1953. p. 30, 34
- Henry Carmer Van Buren, B.A., University of Vermont, 1950; M.D., 1954. p. 34
- Harold James Wallace, Jr., B.S., University of Vermont, 1954; M.D., 1958. p. 34, 46
- Lelon Ashley Weaver, Jr. (Psychology), A.B., University of Vermont, 1943; M.A., Columbia, 1947; Ph.D., Purdue, 1957. p. 51
- Thomas Allen Weidman, B.S., Illinois Wesleyan, 1955; M.S., University of Illinois, 1963; Ph.D., University of Kansas, 1968. p. 25
- Emma Franca Wennberg, B.Sc., McGill, 1957; M.D., 1961. p. 25
- John Egmont Wennberg, B.A., Stanford, 1956; M.D., McGill, 1961; M.P.H., Johns Hopkins, 1966. p. 30, 34, 62, 72
- Elbert Benjamin Whorton, Jr., B.S., Baylor, 1962; M.S., Tulane, 1964; Ph.D., Oklahoma University, 1968. p. 30
- James Matthew Willard, A.B., St. Michael's College, 1961; Ph.D., Cornell, 1967. p. 28
- William Gerard Winters, A.B., Cornell, 1955; M.D., 1959. p. 34
- Robert Cummings Woodworth, B.S., University of Vermont, 1953; Ph.D., Pennsylvania State University, 1957. p. 28
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- Charles Peter Albright, B.A., Allegheny College, 1949; M.D., Cornell, 1953. p. 34
- Ralph Bannister (X-Ray Technique), R.T., American Society of X-Ray Technicians, 1950. p. 53
- Thomas Clinton Bates, B.A., Syracuse, 1958; M.D., McGill, 1962. p. 44
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- Louis William Esposito, B.S., University of Notre Dame, 1931; M.D., Johns Hopkins, 1935. p. 60
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- Elizabeth Held Forsyth, B.A., Mount Holyoke, 1953; M.D., Yale, 1957. p. 51
- Edward Esau Friedman, A.B., Norwich, 1942; M.D., University of Vermont, 1950. p. 30, 34, 44
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- Duane Edgar Graveline, B.S., University of Vermont, 1952; M.D., 1955; M.P.H., Johns Hopkins, 1958. p. 34
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- William Herbert Johnston, B.S., University of Vermont, 1940; M.S., 1943. p. 53
- Warner Edrick Jones, B.S., New Hampshire, 1957; M.D., Tufts, 1961. p. 34
- Thomas Robert Kleh, M.D., George Washington University, 1953. p. 40
- Hyman Bernard Levine (Family Medicine), B.S., University of Vermont, 1930; M.D., 1939. p. 30, 34
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- John Joseph Murray, A.B., Boston College, 1958; M.D., University of Vermont, 1963. p. 44, 73
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- Robert Newton Saxby, B.S., University of Vermont, 1937; M.D., 1941. p. 53
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- James Douglass Sharpe, B.S., New York University, 1933; M.D., Columbia University College of Physicians and Surgeons, 1937, p. 51
- Lester Silberman, B.S., Brooklyn College, 1960; M.D., State University of New York (Downstate), 1964. p. 38
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- Paul Byron Stanilonis, B.S., Springfield College, 1961; M.D., University of Vermont, 1965. p. 34, 73
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John Louis Saia, B.S., University of Vermont, 1931; M.D., 1934. p. 34
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REGIONAL MEDICAL PROGRAM

Richard E. Bouchard, M.D., University of Vermont, 1949; M.S., 1951. Chairman, Progressive Coronary Care Project. p. 62

Otto A. Brusis, M.D., University of Munich, 1960. Director of Heart Inventory Project. p. 62

Donald John Danielson, B.S., Wisconsin State, 1959; M.H.A., University of Michigan, 1966. p. 62

Eigel de Neergaard, B.B.A., Niels Broch (Copenhagen), 1937. Planning Coordinator. p. 62

John E. Mazuzan, Jr., B.S., Boston College, 1951; M.D., University of Vermont, 1954. Assistant Dean for Regional Medical Affairs. p. 62

Darwin Gene Merrill, B.S., Utah State University, 1959; M.S., Purdue, 1964. Human Factors Engineer. p. 62

Marjorie Porter, B.S., Columbia Presbyterian School of Nursing, 1953; Ed.M., Columbia, 1965. Program Developer. p. 62

John Senning, B.S., State University of New York, 1967. Mathematician. p. 62

Caryl J. Stewart, B.A., University of Minnesota, 1953; M.S.W., McGill, 1963. Program Manager. p. 62

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Peter M. Watts, B.E.E., Rensselaer Polytechnic Institute, 1953. Project Engineer. p. 62

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Joan Marquart Moehring, B.S., Syracuse, 1961; M.S., Rutgers, 1963; Ph.D., 1965. p. 32

Jan Roger Schultz, B.S., University of Illinois, 1964; M.S., 1966. p. 34

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Stephen P. Adams, B.A., Middlebury College, 1963. Department of Medicine.

A. John Mahoney, B.A., University of Massachusetts, 1958. Department of Obstetrics and Gynecology.

James P. Reuschel, B.A., University of Vermont, 1965. Department of Surgery.

TUTOR

*Albert G. Kasenter, Jr. (Radiologic Physics), A.B., Thiel College, 1964. p. 53

MEDICAL SOCIAL WORKER

Louise Kelsey, B.A., Wellesley, 1942; M.S., Simmons College, 1948. (Rehabilitation Medicine)

LECTURER

John F. Harwood (Radiologic Safety), B.S., University of Vermont, 1951. p. 53

Louis M. Izzo (Radiologic Physics), M.S., University of Miami, 1969. p. 53

* Leave of absence, 1969-70.

Graduates, May 1969 and Internship Appointments

- John C. Abajian, B.A., Montreal General Hospital, Montreal, Canada
Bruce D. Baird, B.S., Albany Medical Center, Albany, N.Y.
Stephanie A. Barnes, B.A., St. Francis Hospital, Honolulu, Hawaii
George P. Baron, B.S., Good Samaritan Hospital, Phoenix, Ariz.
Lawrence P. Bratt, M.S., San Joaquin General Hospital, Stockton, Calif.
David A. Byrne, B.A., Santa Clara Valley Medical Center, San Jose, Calif.
Richard R. Byrne, A.B., Santa Clara Valley Medical Center, San Jose, Calif.
James D. Cahill, A.B., Harrisburg Hospital, Harrisburg, Pa.
Bernard M. Casey, A.B., Letterman General Hospital, San Francisco, Calif.
Daniel B. Clarke, B.S., Madigan General Hospital, Tacoma, Wash.
Frederick S. Cramer, B.S., Medical Center Hospital of Vermont, Burlington
William S. Dempsey, Jr., A.B., Presbyterian Medical Center, Denver, Colo.
William J. Driscoll, B.S., Syracuse Medical Center, Syracuse, N.Y.
Ronald J. Faille, A.B., Cook County Hospital, Chicago, Ill.
Peter A. Felder, A.B., St. Joseph Hospital, Denver, Colo.
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Henry J. Fisk, B.A., U.S. Naval Hospital, Oakland, Calif.
John F. Healy, B.S., U.S. Naval Hospital, Camp Pendleton, Calif.
David P. Hebert, B.A., St. Luke's Hospital, Bethlehem, Pa.
Charles B. Howard, A.B., Tripler General Hospital, Honolulu, Hawaii
David G. King, B.A., Kaiser Foundation Hospital, San Francisco, Calif.
Robert S. Kramer, B.A., St. Elizabeth's Hospital, Boston, Mass.
Dennis S. Kuk, B.A., Kaiser Foundation Hospital, Oakland, Calif.
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 Jonelle C. Rowe, A.B., Duke Hospital, Durham, N.C.
 * Harry E. Short, Jr., B.S., University of Colorado Medical Center, Denver, Colo.
 Arthur B. Soule, III, B.A., Yale-New Haven Medical Center, New Haven, Conn.
 Bruce P. Swinyer, B.A., Kaiser Foundation Hospital, San Francisco, Calif.
 Charles S. Tara, B.S., Albany Medical Center, Albany, N.Y.
 William N. Thibault, B.A., Santa Clara Valley Medical Center, San Jose, Calif.
 John W. Thompson, Jr., B.S., M.S., U.S. Naval Hospital, San Diego, Calif.
 William H. Thurlow, IV, A.B., Memorial University of Newfoundland Affiliated Teaching Hospitals, St. John's, Newfoundland
 William J. Watson, B.S., Los Angeles County General Hospital, Los Angeles, Calif.
 Ronald N. White, B.A., Blodgett Memorial Hospital, Grand Rapids, Mich.

* Deceased Sept. 15, 1969.

Register, 1969-70

FOURTH YEAR:

- Michael Bruce Andorsky, B.A.
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- Raymond Joseph Anton, A.B.
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Waterbury
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Martin Ralph Phillips, A.B.	W. Roxbury, Mass.	Lloyd Edward Witham, A.B.	Billerica, Mass.
Victor Joseph Pisanelli, Jr., B.A.	Rutland	Charles James Wolcott, II, B.S.	Underhill Ctr.

Sugarbush Valley



Photo: Vermont Development Department

National Ballet, one of many major attractions to appear on the University's endowed George Bishop Lane Artists Series



Calendar, 1970-71

September 2	Wednesday 2:00 p.m.	Convocation
September 3	Thursday	Classes begin

Basic Science Core

1st period: Sept. 3, 1970 (Thurs.) through Dec. 19, 1970 (Sat.)

Oct. 19-20	Mon. through Tues.	Mid-trimester examinations
Nov. 26-29	Thurs. through Sun.	Thanksgiving recess
Dec. 11	Friday	End of classes
Dec. 12-14	Sat. through Mon.	Reading period
Dec. 15-19	Tues. through Sat.	End of period examinations
Dec. 19-Jan. 3	Sat. through Sun.	Christmas recess

2nd period: Jan. 4, 1971 (Mon.) through Mar. 27, 1971 (Sat.)

Jan. 4	Monday	Classes resume
Feb. 8-9	Mon. through Tues.	Mid-trimester examinations
Mar. 19	Friday	End of classes
Mar. 20-22	Sat. through Mon.	Reading period
Mar. 23, 25, 27	Tues., Thurs., Sat.	End of trimester examinations
Mar. 27-Apr. 4	Sat. through Sun.	Spring recess

3rd period: Apr. 5, 1971 (Mon.) through June 3, 1971 (Thurs.)

Apr. 5	Monday	Classes resume
May 3, 4	Mon. through Tues.	Mid-trimester examinations
May 25	Tuesday	End of classes
May 26, 27	Wed. through Thurs.	Reading period
May 28-June 3	Fri. through Thurs.	End of trimester examinations

4th period: Sept. 3, 1970 (Thurs.) through Dec. 19, 1970 (Sat.)

Oct. 19-20	Mon. through Tues.	Mid-trimester examinations
Nov. 26-29	Thurs. through Sun.	Thanksgiving recess
Dec. 11	Friday	End of classes
Dec. 12-14	Sat. through Mon.	Reading period
Dec. 15-19	Tues. through Sat.	End of period examinations
Dec. 19-Jan. 3	Sat. through Sun.	Christmas recess

Clinical Science Core

Group I

Medicine and Surgery

Jan. 5 (Mon.) - Mar. 27 (Fri.), 1970
Mar. 30 (Mon.) - June 12 (Fri.), 1970

Summer Recess: June 13 (Sat.) - June 28 (Sun.)

Obstetrics, Pediatrics, Psychiatry

June 29 (Mon.) - Aug. 21 (Fri.), 1970
Aug. 24 (Mon.) - Oct. 16 (Fri.), 1970
Oct. 19 (Mon.) - Dec. 18 (Fri.), 1970

Thanksgiving Recess: Nov. 26 (Thurs.) - Nov. 29 (Sun.)

Group II

Obstetrics, Pediatrics, Psychiatry

Jan. 5 (Mon.) - Feb. 27 (Fri.), 1970
Mar. 2 (Mon.) - Apr. 24 (Fri.), 1970
Apr. 27 (Mon.) - June 12 (Fri.), 1970

Medicine and Surgery

June 29 (Mon.) - Sept. 18 (Fri.), 1970
Sept. 21 (Mon.) - Dec. 18 (Fri.), 1970

Senior Major Program

Jan. 5 (Mon.)—Feb. 13 (Fri.), 1970
Feb. 16 (Mon.)—Mar. 27 (Fri.)

Mar. 30 (Mon.)—May 8 (Fri.)
May 11 (Mon.)—June 19 (Fri.)

Summer vacation: June 20 (Sat.)—Aug. 9 (Sun.), 1970

Aug. 10 (Mon.)—Sept. 18 (Fri.)
Sept. 21 (Mon.)—Nov. 6 (Fri.)

Nov. 9 (Mon.)—Dec. 18 (Fri.)*
Jan. 4 (Mon.)—Feb. 19 (Fri.), 1971

Feb. 22 (Mon.)—Apr. 2 (Fri.)
Apr. 5 (Mon.)—May 21 (Fri.)

* Thanksgiving Recess: Nov. 26 (Thurs.)—Nov. 27 (Fri.)
Christmas Recess: Dec. 19, 1970 (Sat.)—Jan. 3, 1971 (Sun.)

Class Day: May 22, 1971

Graduation: May 23, 1971

1st Period
2nd Period

3rd Period
4th Period

5th Period
6th Period

7th Period
8th Period

9th Period
10th Period

Flying Scotts at Malletts Bay



ACCREDITATION

The University of Vermont College of Medicine is one of 94 accredited schools of medicine in the United States, having been approved by the American Medical Association and by the Association of American Medical Colleges.

Its residency programs in the Medical Center Hospital of Vermont have been approved by the Council on Medical Education and Hospitals of the American Medical Association and by the respective American Boards.

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